NOTE:
1. **My comments/changes are pink shaded**
2. **Items to be eliminated are shaded green**
3. **Executive summary not yet corrected. Awaiting report finalization.**
4. **Names of people that carried out the survey to be sent down.**

KAP SURVEY DRAFT REPORT

APPENDICES

ACRONYMS

BASICS	Basic Support for Institutionalizing Child Survival Project
BCG	Bacillus Calmette et Guérin
CPH	Community Partnership for Health
DPT	Diphtheria, Pertussis, Tetanus vaccine
EA	enumeration area
FOS	Federal Office of Statistics
IACH	integrated approach to child health
ICHS	Integrated Child Health Survey
IMCI	integrated management of childhood illness
KAP	knowledge, attitudes, and practices survey
LGA	local government area
M&E	Monitoring and Evaluation Unit
NDHS	Nigeria Demographic and Health Survey
NGO	non-governmental organization
NID	national immunization days
ORS	oral rehydration salts or solution
PMV	patent medicine vendor
TBA	traditional birth attendant
TT	tetanus toxoid vaccine
TV	television
UN	United Nations
UNICEF	United Nation's Children's Fund

DRAFTS OF DRAFT - REPORT OF KAP SURVEY 3/12/2001

EXECUTIVE SUMMARY

[ed note: No changes have been made to the original Executive Summary. Recommend a shorter summary that highlights the most important findings of the study relative to the BASICS II programme. This should be compiled after the report is complete.]

BASICS/N, an international NGO focusing on child survival, sometimes in year 2000 embarked on an Integrated Child Health Survey (ICHS) designed to generate baseline data and evaluate the effectiveness of the Community Partnership for Health (CPH) model in improving health care services. CPH model attempts to integrate the community into the planning, provision and management of basic health services. Within this larger study (ICHS), a Knowledge, Attitude and Practice (KAP) survey is derived focusing mainly on child nutrition, immunization and maternal and child health. Its specific objectives were to examine the level of care of mothers in pregnancy, delivery, and post delivery period as perceived by the respondents in the survey area, knowledge and care of childhood illness, level and patterns of child nutrition, level of immunization coverage, attitude of mothers towards child care and the role of media in maternal and child health care.

The study area is made up of the three focus states of BASICS/N that include Abia in the south-eastern part of Nigeria, Kano in the north-western part and Lagos in the south-western part of Nigeria. The sample selection covered both Community Partnership for Health (CPH) areas and non-CPH areas. The "CPH areas" were those areas where the CPH model was in place in some of the selected Local Government Areas in each of the three focus states.

In Abia state, BASICS operates in two LGAs – Aba North and Aba South LGAs where there were five CPHs – four in Aba South and one in Aba North. In Kano state, there were five CPH areas in three of the 9 selected LGAs. These were Gwale in Gwale LGA, Sheshe and Yakasai in Municipal LGA, and Badawa and Gama-B in Nassarawa LGA. In Lagos state, there were 6 CPHs selected from five LGAs. These included Ajegunle and Amukoko in Ajeromi/Ifelodun LGA, Lagos Island in Lagos Island LGA, Makoko, in Lagos Mainland LGA, JAS in Mushin LGA and Lawason in Surulere LGA. A total of 415 women were selected in Abia state, 355 in Kano and 360 in Lagos. The completed questionnaires were edited, and converted to electronic data files using the Microsoft Access data entry programme. The analysis of data was done with the SPSS programme.

From the analysis of the socio-demographic characteristics, the respondents are generally young. The bulk of the women were less than 30 years of age. Educationally, there were variations in the three project sites. Women attained higher level of education in Abia and Lagos state than in Kano. Religious compositions reflect the dominant religions in each of the states. Similarly, ethnicity depicts the main ethnic groups in the regions to which each of the states belonged.

Antenatal care was generally regarded as important in the three project areas even though an appreciable number of women were completely ignorant of it. For the last pregnancy, women from Abia and Lagos states received more antenatal care services than those from Kano. Women from the two former states received their antenatal services from private hospital/clinic whereas women from Kano received their antenatal care services from the public modern health sector facilities. It was also evident that the major sources of information on counseling in the three project sites were from Health professionals and relations.

With respect to delivery and delivery conditions, a number of interesting findings could be noted. For instance, private hospital/clinics were the most commonly patronized place of delivery in Abia and Lagos states, whereas the majority of women deliver at home and other traditional health premises in Kano state. The husbands constitute the most important persons in deciding where the pregnant women delivered. In Abia and Lagos states, the health professionals were the most important assistants at the time of delivery while the Traditional Birth Attendants (TBAs) were more pronounced in Kano.

In the current study, the TBAs performed prominent roles in the delivery of babies at home in Lagos and particularly in Kano. More than half of these TBAs were trained in all of the project sites. It was noted in the study that TBAs arrived much earlier in the places of delivery before the baby arrived and that on the arrival of the babies, the TBAs also assisted in the cutting of the cord and in ensuring cleanness of the child and mother. Part of the activities of the TBAs were to put the baby correctly to breast, wait on the mothers of the new born to ensure that they were in good health conditions and if necessary made revisits. In any case, these activities were rewarded in cash and kind. The level of compensation reflected the standard of living of the area in which the TBAs were working. For instance, TBAs in Lagos received much more compensation than their counterparts in Abia and Kano.

Examining the care given to the new born after birth revealed that the most important actions taken immediately the child was born included “dry the baby”, “wrap the baby”, “keep the baby warm” and “bathe the baby”. Thus, it appeared that women knew what to do immediately after childbirth. For instance in the three project areas, women knew how to treat umbilical cord. However there were apparent ignorance expressed by some of the women when a number of them indicated that “applying cow dung”, “applying soil” as well as “doing nothing” to be the way they would take care of the baby’s cord. This reservation was also noted for materials that were put on the cords particularly in Kano and Lagos where some respondents mentioned engine oil and alligator pepper as materials put on the baby’s cord after it was cut.

Persons attending birth after ensuring safe delivery of the baby and immediate care also are expected to ensure that the new mother succeeds in breastfeeding their babies. Many of the mothers were noted to have received such assistance. The critical issue in breastfeeding is how to ensure that mothers put their babies to the breast immediately after birth. This will enable the baby to have access to colostrum, which is rich in immune properties needed to protect the child in the first few months of life. Incidentally,

many women did not take advantage of early breastfeeding of their babies in spite of the fact that they received appropriate counseling on how to put the baby to breast immediately after birth. This is a serious gap in child care that deserve greater attention advocacy and awareness creation.

There was evidence that mothers received advice and counseling from persons outside the home on the care of their babies. Most of the people seen were close relatives and health professionals. These persons were seen at home in Abia and Kano states and in hospital/clinics in Lagos state within the first three days of birth. The areas of counseling include issues relating to exclusive breastfeeding, how to breastfeed, care of the umbilical cord, frequency of feeding, problems associated with breastfeeding, places to go for breastfeeding problems as well as danger signs in child illness.

The focus on neonatal illness was on common signs and symptoms of sickness in newborn. There was evidence that women were not so much informed about what constituted neonatal illness that needed immediate diagnosis and treatment.

Other questions related to breastfeeding addressed the issue of how soon after birth breastfeeding should be initiated, whether the women know the significance of colostrum to the baby, whether they know about the composition of the breastmilk and what was conceived as exclusive breastfeeding. Again, it was clear that many of the women were ignorant and they expressed their desire to discuss their child health problems with health professionals.

Complementary feeding had been a usual practice for infants worldwide. However, arising from new findings, complementary feeding is not to given until after certain age i.e. after four to six months of life. There was enough evidence however, that many women started to give complementary feeding to their babies right from birth, an action which portends an opposition to the concept of exclusive breastfeeding or an ignorance of its advantages.

In the area of supplementary feeding, women identified supplementary food items that could lead to satisfactory growth of infants. The most important of those identified was vitamin A. It was recognized that lack of vitamin A in children could lead to sickness and a possibility of slow recovery from illness. They opined that children should be given adequate vitamin A supplement and that it could be obtained from health centres and drug chemists apart from that which could be obtained from National Immunization Day.

Some of the issues taken up under integrated approach to child health (IACH) included diarrhea and malaria management. It was identified that diarrhea could be managed through the application of the Oral rehydration therapy including the use of home-made solution and pre-packed OR salts. The women displayed some reasonable knowledge of the contents of the ORS. It is known that OR solution should be given at the first sign of diarrhea. However, a small proportion still remained unfamiliar with the correct timing of when to administer the solution to the affected children.

As expected many of the women knew about malaria, they could mention its symptoms and causes and how to protect children against it. The women listed common treatments for malaria that included the taking of chloroquine, panadol and many others such as syrups and antibiotics. They also knew that fever that does not go away on time requires emergency treatment.

Concerning agreements or disagreements with regard to certain statements relating to child care practices and beliefs, there was an overall inclination towards consensus in six areas of discourse. These included for example that "I would prefer to go to hospital or clinic to deliver my baby than to deliver at home" for which there was an overall consensus of agreement. One example with overall consensus of disagreement was "breastfeeding children makes the breast of a woman sag faster". On the other hand, there was no consensus. For example there was no consensus to the statement that "a woman should not add any other foods or liquids including water to breast milk until her baby is six months old".

Other health issues that were taken up in this study include spousal communication as it affects the nutrition of the child. There were evidences that women and their husbands communicated regularly concerning the health of their children. It was also found that the ideal number of children in the project sites was highest for women in Kano and least for women in Lagos. The ideal family size for women in this study points to the fact that if the country is to avoid high population growth rates, family planning activities must be vigorously pursued. The proportion of women that were using contraceptive methods was low. This was particularly so in Kano.

Mass media remained an important channel through which programmes relating to maternal and child care could be made known and even acceptable to the general public. The women claimed that radio and television aired diverse programmes touching on a wide variety of topics including health issues. Also over the time, the women had developed favourite programmes that they regularly watched and or listen to. However there were specific periods of the day during which these programmes are watched and or listened to. Other sources of information gathering like school, community health promoters and organizations such as BASICS and CPH were mentioned. Indeed, the respondents were asked for instance about the role of community health workers, how they operate and what activities they do. In general, the women claimed to recognize the significance of the community health workers and other agents particularly as it relates to home care.

In sum, there is enough evidence to show that the knowledge about maternal and child care was high but the actual practice of ensuring appropriate and adequate care remains an area of programmatic concern. It appeared that there was still need for strong advocacy and behavioural change communication programme to improve upon the level of maternal and child care in the study sites.

CHAPTER 1: INTRODUCTION

The BASICS II/Nigeria project completed a Knowledge, Attitudes, and Practices (KAP) Study as part of the Integrated Child Health Survey (ICHS) during the period October-November 2000. The ICHS was designed to generate baseline data and evaluate the effectiveness of the Community Partnership for Health (CPH) model in improving health care services. Within the larger study, the KAP study focused on women who were either pregnant or had children less than one year of age with the aim of finding out their attitudes, practices and knowledge on child nutrition, immunization and general child health care.

1.0 Neonatal and Early Child Health in Nigeria

Nigeria's health environment, particularly as it relates to maternal and child care, is poor. The Nigeria Demographic and Health Survey (NDHS 1999 [1]) showed that about three out of ten mothers did not receive antenatal care. This was even worse among teenage mothers, mothers in the rural areas as well as those from the northern states of the country. Two fifths of mothers did not receive tetanus toxoid (TT) vaccination during pregnancy, close to 60 percent delivered at home and about 15 percent did not receive assistance during delivery. (FOS/UNICEF 1999, preliminary report). Less than 15 percent of children were fully immunized (i.e. received BCG, measles, and three doses of DPT and polio excluding polio O). This explains the high prevalence of vaccine preventable diseases such as measles, tuberculosis, diphtheria, whooping cough, polio and tetanus. These diseases are primary contributors to the prevailing high infant mortality rate, estimated at 105 per 1,000 live births, and the under-five mortality rate, at 159 per 1,000 live births. Maternal mortality is estimated between 700 and 800 deaths per 100,000 live births (UN System, 2001).

There are a number of factors responsible for this pattern of poor maternal and child health. Poor economic situation limits access to health facilities; cultural factors play a role in limiting utilization of existing facilities and services. A significant percentage of women are not well-informed on health needs [nutrition and proper surveillance] during pregnancy and immediately after child birth. Furthermore, there are other traditional socio-cultural constraints and taboos relating to nutrition and physical exercise during pregnancy that are responsible for high maternal and infant deaths (Adewuyi, 1998; Adewuyi and Eniola, 1999).

1.2 BASICS Project Background

A number of projects executed by various government and nongovernmental (NGO) agencies have addressed the poor maternal and child health in Nigeria. Among them, the Basic Support for Institutionalizing Child Health (BASICS) project has pursued maternal and child health goals primarily in three focus states: Lagos, Abia, and Kano. Between

[1] Although some reservations were made with respect to the outcome of the 1999 NDHS, such reservations did not affect maternal and child care.

1995 and 1999, BASICS supported the community-based initiative, Community Partnership for Health (CPH) as a means of improving child health services and home health practices.

More recently, during the project's second five years, BASICS II has adopted a programmatic focus on cost-effective, locally adapted interventions aimed primarily at improving routine immunization and early child nutrition. This strategy attempts at empowering the communities to play more active roles in the healthcare of their children. It is called the Catchment Area Planning and Action (CAPA) for child health which is a community based approach intended to strengthen planning and action at various levels. It is hoped that this CAPA process will be used in all the target LGAs to accomplish the goals of the project which include; improved immunization coverage, improved childhood nutrition and improved prevention & management of diarrhoea, malaria and ARI.

CHAPTER 2: KAP STUDY

The current study of Knowledge, Attitudes and Practices (KAP) is a subset of a larger study, the Integrated Child Health Survey (ICHS), aimed at evaluating the effectiveness of the Community Partnership for Health (CPH) model in improving health services, empowering women and experiencing participatory decision making. The KAP survey was informed by the need to know the behavioral patterns (attitudes and practices) of the women in the project sites with regards to child nutrition, immunization and general healthcare. This was considered vital for proper program planning and implementation

2.1 KAP Study Objectives

The general objective of the KAP study is to determine the level of knowledge, attitudes and practice of mothers with respect to maternal and child health. The specific objectives are to examine the:

- level of care of mothers in pregnancy, delivery, and after delivery;
- knowledge and care of childhood illness;
- level and patterns of child nutrition;
- level of immunization coverage;
- attitude of mothers toward child care;
- role of media in maternal and child health care

2.2 The Study Area

The study area is made up of twenty local government areas (LGAs) in three states in which BASICS/Nigeria operates. These are Abia, Kano and Lagos. The LGAs covered as BASICS II programme sites represent 21, 27 and 51 percent respectively, of the state's population, as shown in Table 2.2.1 below. State averages that appear throughout this report are based only on those LGAs sampled and should not be construed as representative of the state as a whole.

Table 2.2.1 ICHS/KAP study populations as proportion of State population, BASICS II/Nigeria ICHS/KAP 2001

State	LGAs in the project area	Total number of LGAs in the state	Percent of state population
Abia	2	17	21%
Kano	9	44	27%
Lagos	9	20	51%

Abia State

Abia state is one of the states making up the southeastern zone of Nigeria. It covers a land area of approximately 5,243.7 square kilometers, which represents about 0.57 percent of the land area of Nigeria (Ijioma 2000), but accommodates about 3,028,856 people. The

Igbos are the dominant inhabitants of the state. However, because of Abia's rich commercial environment particularly around Aba, it is known that the state attracts a number of other ethnic groups such as the Hausas and the Yorubas. The administrative headquarters of the state is located in Umuahia although BASICS is working in Aba, the commercial nerve center of the state.

For local government administration, the state is divided into 17 Local Government Areas (LGAs). Out of these, BASICS II/N operates in two, namely Aba North and Aba South LGAs.

Kano State
Kano is one of the states that constitute the northwestern zone of Nigeria. It is made up of the original Kano Emirate. The state's projected population is 7,525,838, which is dominated by people of Hausa/Fulani origin. However, because of its economic, industrial and religious importance, virtually all the other ethnic groups in the country are represented in the state (Falola, 2000).

For administrative purposes, the state is broken down into 44 LGAs. Out of these, BASICS II/N project is to involve nine: Bebeji, Dala, Gwale, Kano Municipal, Nassarawa, Kabo, Kura, Tsanyawa and Warawa.

Lagos State
Lagos state was created in 1967 when the former four regions were broken into 12 states. Unlike most of the other states, it has maintained its original geographic boundaries. Its headquarters is located in Ikeja. Although as a former capital city of Nigeria, it has a large population of the various ethnic groups in the country, the Yorubas remain the most dominant ethnic group in the state. The state covers a land area of 3,577 square kilometres, which is only about 0.4 percent of the entire area of the country, but it accommodates 7,401,880 people. It is thus the state with the highest population density in the country.

For grassroots administration, Lagos state is divided into 20 LGAs. Each of the LGAs is administered by elected officers and is headed by an executive chairman. BASICS II is to operate in nine of the LGAs: Ajeromi/Ifelodun, Badagry, Lagos Island, Lagos Mainland, Mushin, Kosofe, Ibeju-Lekki, Shomolu and Surulere.

2.3 Sample Design

The KAP study derives from the survey on Integrated Child Health conducted by BASICS/N in the year 2000. The ICHS employed a multi-stage stratified sample design. The ten LGAs with BASICS presence were subdivided into two strata: (1) areas within the LGA where BASICS was active (CPH area) and (2) areas within the LGA where BASICS was not active (non-CPH). The ten LGAs where BASICS was slated to begin activities constituted a third and separate stratum.

From each CPH and non-CPH area, 12 enumeration areas (EAs) were randomly selected and a household list was compiled for them. From the household lists, 12 households with eligible women were randomly selected. A household was eligible if it had a woman within the reproductive age with at least one child of less than five years.

The KAP survey selected a subset of eligible women from the ICHS. A woman was eligible if she had a child that was less than one year old or was currently pregnant. The sample sizes are shown in Table 2.3.1 below. In Abia state, BASICS operates in two LGAs, of which one had CPH programmes. In the five CPH areas of that LGA, 7 EAs were randomly selected from the original 12 EAs used in the ICHS. From the 12 households earlier selected for ICHS in each of the 7 EAs, five eligible women were randomly selected. This yielded a sample size of 175 women for CPH areas in Abia. In the non-CPH areas, all the 12 EAs selected in the ICHS were considered in each of the two LGAs. From the 12 households earlier selected for the ICHS, 10 eligible women were randomly picked from each of the EAs, resulting in a sample size of 240 women. Abia State therefore had a total sample size of 415 women.

In the nine LGAs in which BASICS operates in Kano state, three have a total of five CPH areas. In each of these areas, seven of the 12 EAs that were randomly selected for the ICHS, were again selected randomly. As in Abia state, five eligible women were randomly picked from the selected households in the ICHS in of the seven EAs. This yielded a total sample size of 175 women. In the non-CPH areas, from all the nine LGAs, four EAs were randomly selected from the 12 EAs used for the ICHS. Following the procedure described for Abia State, five eligible women were randomly selected from the households picked for ICHS. This gave a sample size of 180 women, and a total sample size for Kano state of 355.

Five of the nine LGAs in which BASICS operates in Lagos state have a total of six CPH areas. From each of the CPH areas, six of the original 12 EAs randomly selected for the ICHS were selected. Five eligible women were then picked as already described for the other states. This yielded a sample size of 180 women. In the nine LGAs, four EAs were randomly selected from the original 12 EAs picked for ICHS in the non-CPH areas. From the households earlier selected in these four EAs for the ICHS, five eligible women per EA were randomly picked yielding a sample size of 180 women. The total sample size for Lagos state was 360. The total sample size for the three states was 1130 women who were pregnant or had a child under one year of age.

Table 2.3.1 Sample Size for the KAP Survey of the ICHS, Basics II/Nigeria KAP/ICHS 2000

	Abia State		Kano State		Lagos State	
BASICS Project Area LGAs	2		9		9	
	With CPH	Non CPH	With CPH	Non CPH	With CPH	Non CPH
Enumeration Areas	35	24	35	36	36	36
Eligible women per EA	5	10	5	5	5	5
sample size	175	240	175	180	180	180
Eligible Women Sampled	415		355		360	

2.4 Questionnaire

The knowledge, attitudes and practices (KAP) questionnaire was designed to collect information from pregnant women or mothers of children under 1 year from amongst the ICHS respondents. The questionnaire covered areas such as antenatal care, delivery and postnatal care. It also collected information on neonatal illness, breastfeeding, complementary feeding, immunization, integrated management of childhood illness (including diarrhea and malaria), media exposure and general health issues. For this KAP study, the women's background characteristics was extracted from the ICHS women's questionnaire but it was slightly deficient. The total number of women reported on here is slightly smaller than expected because a few of the women interviewed in the KAP survey could not be traced from the records of ICHS survey. These women recorded different names in the two surveys and so made it difficult placing them. However, the number of women affected is small and will not significantly affect the overall results of the study.

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In a separate section of the study, a number of general questions were posed in which women were asked to express their opinion on a broad range of topics. For various statements, respondents were asked whether they agree or disagree. Responses to these questions are included in the relevant sections throughout the report.

2.5 Training and Fieldwork

The fieldwork was organized such that each state (project site) had a coordinator who was responsible for all field operations and reporting to the M&E unit of BASICS/Nigeria. The coordinator received assistance from the office editor whose duty it was to review and verify the data coming in from the field for completeness. The interviewers were grouped into teams made up of a field editor, supervisor and four interviewers.

Prior to the data collection, training was conducted for all people involved in the fieldwork. The training involved discussions on roles and responsibilities, in-depth review of the questionnaire, interview guidelines and procedures and the field trial of the survey instrument.

2.6 Data Analysis

At the end of each day's fieldwork, the office editors reviewed the completed questionnaires for correctness before forwarding them to the office editors for final verification. The data entry was performed using the Microsoft Access programme that was later converted to SPSS for data cleaning and analysis. The "cleaning" involved consistency checks on the values of the variables and general pattern of responses. Rules for "cleaning" were established through a detailed study of the questionnaire including the "skip patterns" and questions with restricted respondents. Data analysis involved frequency runs and cross tabulations.

CHAPTER 3: CHARACTERISTICS OF THE RESPONDENTS

3.1 General Characteristics

The data on socio-demographic characteristics of the respondents were derived from the larger data set of the Integrated Child Health Survey (ICHS). These are shown in Tables 3.1.1 – 3.3.5. It should be noted however, that the data size (total number of respondents) contained in these tables is slightly different from those reported in the remaining parts of this report. This is because it was difficult to trace a number of women interviewed in the KAP survey from the records of ICHS survey. These women recorded different names in the two surveys. However, the number of women affected is small and will not significantly affect the overall results of the study.

Socio-Demographic Characteristics of the Respondents

The selected socio-demographic characteristics for the three project sites include age, level of education, religion, ethnicity and occupation. The age distribution revealed that among the three sites, the highest proportion of women in age group 15 – 19 years was in Kano state (13.7 percent.). Kano also had the highest proportion of women in age group 20 – 24 years (26.7 %) implying that more than two-fifths of the women were in the age group 15 – 24 years. However, for both Abia and Lagos states, the bulk of women in the sample is in the age group 25 – 34 years. Close to two thirds of the women were in this age bracket. The pattern suggests that there are more younger women in the survey site in Kano than in the two other sites.

Table 3. 1.1: Age Distribution of Respondents

VARIABLES	ABIA	KANO	LAGOS	TOTAL
	N=280	N=248	N=277	N=805
Age Group (in years):	%	%	%	%
15 – 19	2.5	13.7	4	6.5
20 – 24	17.5	26.7	19.9	21.1
25 – 29	41	24.2	39.7	35.4
30 – 34	23.6	14.9	24.5	21.2
35 – 39	13.2	14.9	7.9	11.9
40+	1.1	5.2	3.3	3.1
No Response	1.1	0.4	0.7	0.8
	100	100	100	100

With respect to level of education, Kano state showed the highest proportion of women with no schooling (close to 17 %); in addition more than 3 in every 5 had only primary school education. From this proportion, 21% were in formal primary school and 41% in koranic primary school. Also in Kano, 1.6% of the women had koranic secondary school level of education and 19.8 % in formal secondary school. In the two other states, most of the women had at least secondary school level of education.

Table 3.1.2: Educational level of Respondents

VARIABLES	ABIA N=280	KANO N=248	LAGOS N=277	TOTAL N=805
Level of Education	%	%	%	%
No School	1.8	16.9	9	8.7
Koranic	0	0.8	0	0.2
Primary	14.3	21	20.6	18.5
Koranic primary	0	41.2	0.7	12.9
Secondary	73.5	19.8	57.8	51.1
Koranic Secondary	0	1.6	0	0.5
Higher	10	1.2	11.9	8
No Response	0.4	0	0	0.1
	100	100	100	100

Religious denominations as reflected in Kano and Abia states indicated the main religious sects in the two regions: Christians in the East (99.6 %) and Muslims in the North (96.4 %). In Lagos state, however, Christians were 11 percentage points higher than the Muslims.

Table 3.1.3: Distribution of Respondents according to religion

VARIABLES	ABIA N=280	KANO N=248	LAGOS N=277	TOTAL N=805
Religion	%	%	%	%
Christians	99.6	2	55.6	54.4
Muslim	0	96.4	44	44.8
Traditional	0	0.8	0.4	0.4
No Response	0.4	0.8	0	0.4
	100	100	100	100

The ethnic composition was a reflection of the dominant ethnic groups in each of the three survey sites: Igbo (96.8 %) in Abia, Hausa (92.4 %) in Kano and Yoruba (62.8 %) in Lagos.

Table 3.1.4: Distribution of Respondents according to Ethnicity

VARIABLES	ABIA N=280	KANO N=248	LAGOS N=277	TOTAL N=805
Ethnicity	%	%	%	%
Igbo	96.8	0.0	20.9	40.8
Yoruba	0.0	1.2	62.8	22
Hausa	0.0	92.4	4.7	30.1
Others	2.5	2.8	11.6	5.7
No Response	0.7	3.6	0.0	1.4

	100	100	100	100

In relation to occupational attachment, the proportions of women in food selling in the three survey areas were about the same (Abia: 25.7 percent; Kano:23.8 percent; Lagos: 23.5 %). However, there were many more women in crafts in Kano than in the two other areas. It was also noted that there was a high proportion of non-response with respect to occupation. This might reflect a high rate of unemployment in the society and the fact that the affected respondents were very sensitive to answering questions relating to their employment status.

Table 3.1.5: Distribution of Respondents according to Occupation

VARIABLES	ABIA N=280	KANO N=248	LAGOS N=277	TOTAL N=805
Occupation	%	%	%	%
Selling Food	25.7	23.8	23.5	24.3
Crafts	9.3	30.2	13.4	17.1
Housewife	11.8	0.4	17.3	10.2
Civil Servant	7.1	0	8.3	5.3
Agriculture	**2.1	**1.2	0.7	1.4
Shop keeping	**0.7	**0.8	1.1	0.9
Servant/Household worker	0	0	0	0
Others	4.6	2	1.4	2.7
No Response	38.7	41.6	34.3	38.1
	100	100	100	100

Women in the sample were asked about the number of children that they considered ideal. Women in Kano expressed an ideal family size nearly twice the size of the ideal for women in Lagos. The mean distribution showed that in Kano, women's ideal number of children was 8.2, 4.8 in Abia and 4.2 in Lagos. (figure 6.1.3)

Since the age at first marriage in Nigeria is currently about 18 years, and given a birth interval of 2 years, a Nigerian woman could have at least 15 children by the end of her reproductive life if no deliberate action is taken to control fertility. When asked about current use of family planning methods, the response was very low which may have been affected by the fact that the women were either pregnant or had a child under one year of age at the time of the survey. In Lagos, about a third of the women currently use any method; condoms (11%) and abstinence (8%) were most frequently cited. Four percent use the contraceptive pill. In Abia State, where a similarly low 3 percent take the pill, a total of 23 percent use any method. Contraceptive use in Kano is virtually non-existent, with only 0.3 percent of women using the IUD. No other method was cited for women in Kano. (see Table 3.1.6).

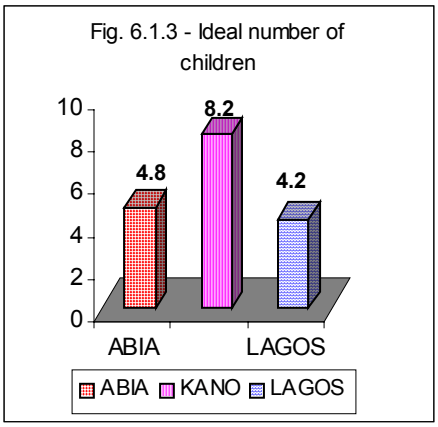


Table 6.1.1: Family Planning Methods Used By Mothers

	ABIA N=292		KANO N=286		LAGOS N=281		Project Area average N=859	
Percent of women currently using a family planning method	**68**	**23.3**	**4**	**1.4**	**94**	**33.5**	**166**	**19.3**
Family planning methods used	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
Condoms	22	7.5	0	**	28	10.7	50	5.8
Abstinence	20	7.9	0	**	18	7.8	38	4.4
Pills	8	2.7	0	**	11	3.9	19	2.2
*Others	9	**	1	**	18	6.4	28	3.3
No Response (including women not using any form of FP method)	233	79.8	285	99.7	206	73.3	724	84.3

*** Data suppressed due to small cell size (less than 10 observations)*

**Others include IUD, Lactational amenorrhea, Withdrawal, Injectables, Traditional herbs, Norplant and Vasectomy*

3.2 Decision-making and health care

Child care should involve active participation of husbands and wives in the home. But the traditional way of life in Nigeria usually depicts domestic activities, including child care, as the sole responsibility of women. In order to find out the extent to which men are involved in child care, a number of questions were included in the current survey to confirm or refute some traditionally held beliefs and to determine the extent to which they are still valid. (See Table 6.0 in Appendix.)

There is a general notion that child care and other domestic activities are often left to the wife. To get a sense of whether this precludes shared decision-making, respondents were asked their reaction to the statement "I hardly ever talk to my husband about the health of our children". The women in this survey in general registered strong disagreement with the statement. Eighty-eight percent of respondents in Lagos State, 71 percent in Abia, and 61 percent in Kano completely disagreed. Only in Kano did more than 10 percent of the respondents agree completely with the statement (15 %). These findings indicate that communications efforts targeting fathers as well as mothers may be effective.

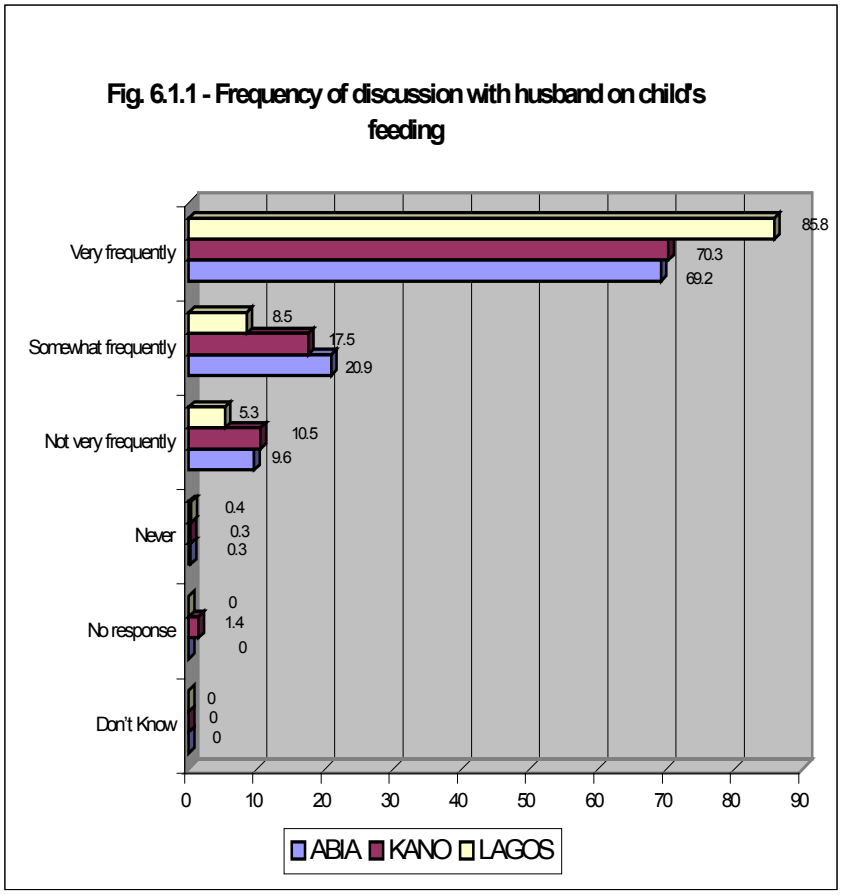
Similarly, it was found that a large majority of the women in Lagos (80 %) and Abia (85%) do not feel constrained by their husbands from attending meetings to learn about caring for the health of the children. (Eighty percent and 73 percent respectively, disagree completely or slightly.) Even in Kano, where more than one third of women strongly agreed that their husband would object, 42 percent disagreed strongly. It appears to be much more common, but not universal in Kano that women must get permission to attend meetings outside the home, even when the topic is child health.

It is similarly believed that women in traditional societies must obtain permission from their husbands before seeking health care. When the women were asked to express their opinion concerning the statement "I will never go to a health care provider for my child unless I get approval from my husband first", the responses varied along state lines. More than two-fifths of the women in Lagos disagreed completely with this statement, though almost as many agreed completely. Thirty-seven percent of respondents in Abia and one-fifth in Kano disagreed completely. However, an appreciable proportion of women expressed complete agreement with this statement in all the project sites. In Kano, two-thirds of the women agreed that women must get permission to seek health care, as did more than one-fifth in Abia. It appears from these responses that many women do not have complete freedom to seek health care without first of all seeking permission from their husbands.

The survey attempted to discern the influence husbands have on child feeding in each of the three states. As seen in Figure 6.1.1, there is evidence that most women discuss child feeding very frequently with their husbands. In Lagos state, 86 percent of the women claimed that they talk very frequently with their husbands about their children's feeding. In Kano, 70 percent, and in Abia 69 percent gave a similar reply. The proportion of women who have never talked to their husbands on their children's feeding is negligible

in all the project sites. A follow up question further indicated a similar pattern for all discussions of children's health (Figure 6.1.2).

In general, women in Abia and Lagos did not feel their mother-in-law has an undue influence on their husband with regard to child feeding (Table 6.0 in Appendix). Seven of ten respondents in these two states disagreed strongly that their husband listens too much to his mother about feeding the children, while in Kano just over half disagreed completely with the statement. In fact, in Kano, more than one fifth agreed with the statement.



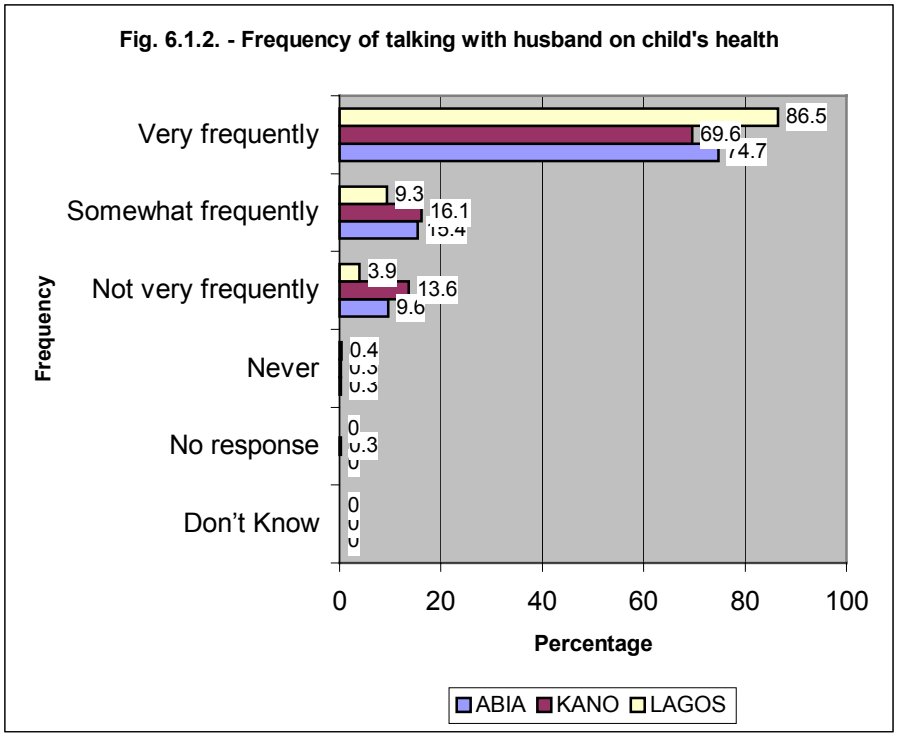


Fig. 6.1.2. - Frequency of talking with husband on child's health
Very frequently
Somewhat frequently
Not very frequently
Never
No response
Don't Know
Frequency
86.5
69.6
74.7
9.3
16.1
3.9
13.6
9.6
0.4
0.3
0.3
0
0
0
0
0
0
0
20
40
60
80
100
Percentage
ABIA
KANO
LAGOS

3.3 Media Exposure and Other Channels of Communication

Health communications provide an important means to increase awareness about child health and influence behaviours and the decision-making process. For health issues that require wide acceptance and support, mass media has been used as a powerful advocacy tool and behavioural change communication strategy. Interpersonal communications from health workers and other influential people can serve to reinforce broad messages heard through the media and are more tailored to the individual's health situation. The KAP survey examined the extent of use of mass media, as well as other channels of communication through which the surveyed mothers have received health information.

In the present study, a significant proportion of respondents, though not all, recalled having seen or heard child health messages. In Abia, 98 percent indicated that they have heard messages about child health, most commonly about exclusive breastfeeding, family planning and vaccination. (See Table 7.1.2). Seventy-two percent of women surveyed in Lagos have heard child health messages, in particular about vaccination and exclusive breastfeeding. In Kano, 58 percent of respondents had heard messages, with emphasis on diarrhea and vaccination. Only one in five women in Abia and fewer in the other two states recalled hearing messages about nutrition for babies under six months.

Respondents throughout the survey area cited a balance of mass media and interpersonal contacts as the sources of messages they have heard about child health, (see Table 7.2.1). Radio was the source for 96 percent in Abia, 93 percent in Lagos and 85 percent in Kano. Health care providers were cited by 94 percent of women in Lagos and 93 percent in Abia. Somewhat surprisingly, more women in Kano recalled television than health workers or family and friends as a source of health messages. Data from both the ICHS and KAP indicate that only about 40 percent of Kano women have regular access to a television.

Table 7.1.2: Respondents that have either seen or heard messages on child health

S/N	RESPONSE	ABIA N =292		KANO N = 286		LAGOS N = 281		Project Area Average	
		#	%	#	%	#	%	#	%
1	Yes	285	98.0	166	58.0	202	72.0	653	76.0
2	No	6	2.0	115	40.2	78	27.8	199	23.0

Table 7.2.1: Source of messages heard about child health

Where messages were heard	ABIA N=285		KANO N=166		LAGOS N=202		Project Area average N=653	
	#	%	#	%	#	%	#	%
Health worker/agent/provider	264	92.6	62	37.3	190	94	516	79.0
Family/Friends/Neighbours	205	71.9	72	43.4	137	67.8	414	63.4

Community Health Promoter	141	49.5	23	13.9	108	53.5	272	41.7
School	45	15.8	9	5.4	60	29.7	114	17.5
Local Community Leader	23	8.1	7	4.2	37	18.3	67	10.3
Radio	274	96.1	141	84.9	187	92.6	602	92.2
T V.	256	89.8	88	53	188	93.1	532	81.5
Local Newspaper	62	21.8	10	6	108	53.5	180	27.6
Other	2	0.7	3	1.8	4	2	9	1.4
No Response	0	0	2	1.2	0	0	2	0.3
Don't know	0	0	0	0	0	0	0	0.0

Mass Media

The high recall of television as a source of health messages demonstrates the powerful impact of media for disseminating or reinforcing messages about health behaviours. The survey looked at ownership and access to both radios and televisions and how and when information is transmitted. Some of observations in this section may have been due to the fact that many of the LGAs are urban or semi urban. The high visibility of health workers as a source of child heatlh messages in Abia & Lagos states is worthy of note.

Radio

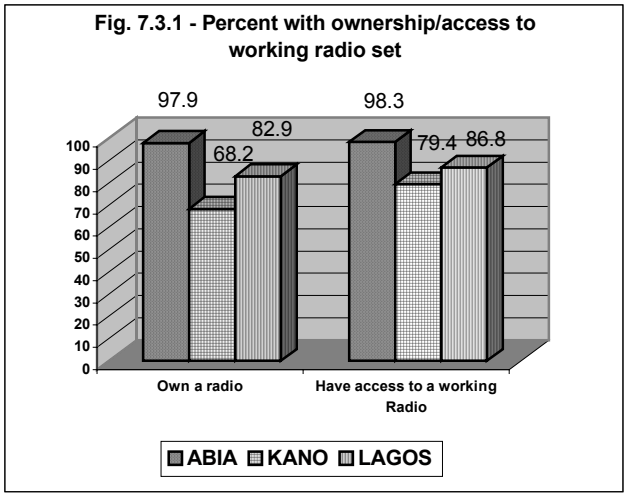
One of the questions sought to know from the women how many of them own radios and how many of them have a working radio. Radio ownership is high throughout the survey area: Ninety-eight percent women in Abia, 83 percent in Lagos and 68 percent in Kano own their own radio. More importantly, access to a working radio was cited by 79-98 percent of women (Figure 7.3.1). Ninety percent of women in Abia claim to listen to the radio every day, compared to 68 percent in Kano and 60 percent in Lagos. The proportion of women in each of the project sites that listened to radio only once a week or less was small (Figure 7.3.2).

As seen in Table 7.3.1, radio listening by women is concentrated in the morning and, to a lesser extent, late evening. In Abia, one in three women listen "all the time". These responses provide useful guidelines for the most cost-effective timing of radio spots targeting mothers of young children. The types of programmes preferred by respondents, however, are much more varied, though news/current events and family programmes were among the top choices in all three (Table 7.3.2). Women in Lagos indicated strong preferences for news (43%) and family programmes (26%). Respondents in Kano favoured news (43%), drama (27%) and family programmes (23%). Women in Abia, with the highest overall listenership, indicated a strong preference for four types of programming: news (58%), family programmes (57%), drama (42%), and commercials (35%). Advertisements/commercials were mentioned by only 6 percent of women in Kano and less than 1 percent in Lagos.

The women were asked whether they had heard on the radio any spot or announcement or listened to a child health programme in the past three months. It is interesting to compare their responses in Fig. 7.3.3, with the information in Table 7.1.2 above. Though 93 percent of respondents in Lagos cited radio as a source of messages they have heard about child health, only 40 percent recalled listening to a child health programme in the

past three months. In Kano, the figures were 85 percent and 29 percent in the past three months.

As shown in Table 7.3.3, the women in Abia were far more likely to discuss the child health show or spot with others, particularly with their spouse (41%) or a friend/relative (36%). Tweny-four percent of women in Lagos discussed the broadcast with a friend/relative; only 8 percent discussed it with their spouse. Women in Kano were the least likely to have discussed what they heard with anyone. In Abia, 5 percent of the women discussed with their mother. In the other two states, this proportion was less than 1 percent.



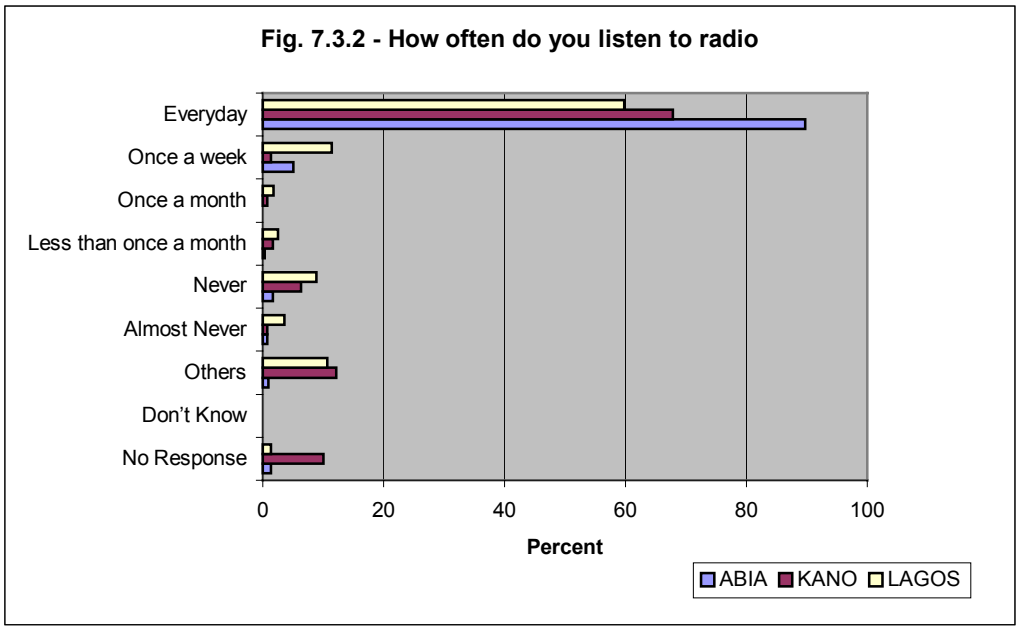


Table 7.3.1: Period respondent listens most to radio

	ABIA N=292		KANO N=286		LAGOS N=281		Project Area average N=859	
	#	%	#	%	#	%	#	%
In the morning	97	33.2	91	31.8	126	44.8	314	36.6
Mid Morning	1	0.3	2	0.7	8	2.8	11	1.3
Afternoon	10	3.4	17	5.9	17	6	44	5.1
Late Evening	66	22.6	50	17.5	33	11.7	149	17.3
All the time	98	33.6	42	14.7	43	15.3	183	21.3
Others	10	3.4	27	9.4	24	8.5	61	7.1
Don't Know	0	0	0	0	1	0.4	1	0.1
No Response (including those with no access to radio)	10	3.4	57	20	29	10.3	96	11.2

Table 7.3.2: Favourite radio programs

	ABIA N=292		KANO N=286		LAGOS N=281		Project Area average N=859	
	#	%	#	%	#	%	#	%
News/current events	169	57.9	123	43	120	42.7	412	48.0
Family Programmes	166	56.8	65	22.7	74	26.3	305	35.5
Drama/Plays/Soap Opera	122	41.7	77	26.9	44	15.7	243	28.3
Adverts/commercial	103	35.3	17	5.9	1	0.4	121	14.1
Requests/Musicals	56	19.2	37	12.9	26	9.2	119	13.9
Discussions/Debates/Interview	35	12	17	5.9	52	18.5	104	12.1
Sports	16	5.5	1	0.3	20	7.1	37	4.3
No particular show	28	13	4	1.4	36	12.8	68	7.9
Other	12	4.1	19	6.6	22	7.8	53	6.2
Don't Know	0	0	1	0.3	4	1.4	5	0.6

Fig. 7.3.3 - Percent of women who listened to child health program on radio in past three months

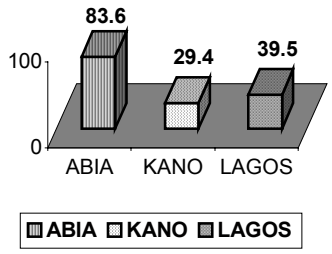


Table 7.3.3: Discussion of radio programs with others

With whom Radio information was shared	ABIA N=292		KANO N=286		LAGOS N=281		Project Area average N=859	
	#	%	#	%	#	%	#	%
Friends/Neighbour/Relations	106	36.3	37	12.9	66	23.5	209	24.3
Spouse	121	41.4	6	2.1	21	7.5	148	17.2
Mother	15	5.1	1	0.3	1	0.4	17	2.0
Mother-In-Law	5	1.7	0	0	0	0	5	0.6
Doctor	5	1.7	0	0	0	0	5	0.6
Nurse/Midwife	4	1.4	0	0	0	0	4	0.5
Traditional Healer	0	0	0	0	0	0	0	0.0
TBA	0	0	0	0	0	0	0	0.0
Community Health Worker	1	0.3	2	0.7	0	0	3	0.3
Others	2	0.7	3	1	0	0	5	0.6
Don't Know	0	0	0	0	0	0	0	0.0
No Response (either because they have not listened at all or did not discuss it with any one)	114	39	250	87.4	205	72.9	569	66.2

Television

Television ownership for all states was of a similar magnitude to having access to a working television. As shown in Figure 7.4.1, women in Abia enjoy close to universal access, as well as a high level of ownership. Seventy-three percent of women in Lagos said they own a TV, while 82% have access to a working television. In Kano, two of five women are able to view TV.

Of those who have access to working televisions, 87 percent of women in Abia State, indicated they watch TV every day. The corresponding percentages in Kano and Lagos are 35 and 63, respectively (Figure 7.4.2). Forty percent of Abia respondents prefer to watch TV in the late evening and 36 % in early evening. In Kano, 17 percent watch TV in the early evening and 15 percent watch in late evening. Though 32 % of women in Lagos watch TV in the late evening, viewing times are spread throughout the day (Table 7.4.1).

More than half of Abia respondents rated drama/plays, news and family programmes as favourites (Table 7.4.2). Women in Lagos and Kano indicated similar favourites, with drama the most preferred. The other favourite programmes mentioned in Abia but which small proportions reported in the other two states included advert/commercials (30 %), request/musical (17 %) and sports (12 %). Another favourite in Lagos, discussion/debate/interview, was mentioned by 14 percent of the women.

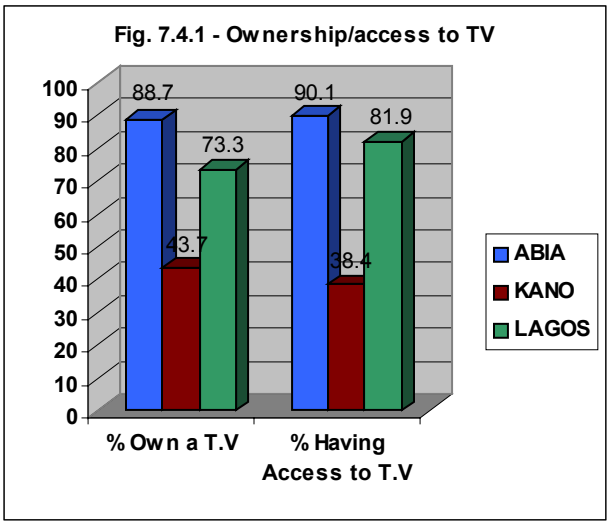


Fig. 7.4.1 - Ownership/access to TV
100
90
80
70
60
50
40
30
20
10
0
88.7
43.7
73.3
90.1
38.4
81.9
% Own a T.V
% Having Access to T.V
ABIA
KANO
LAGOS

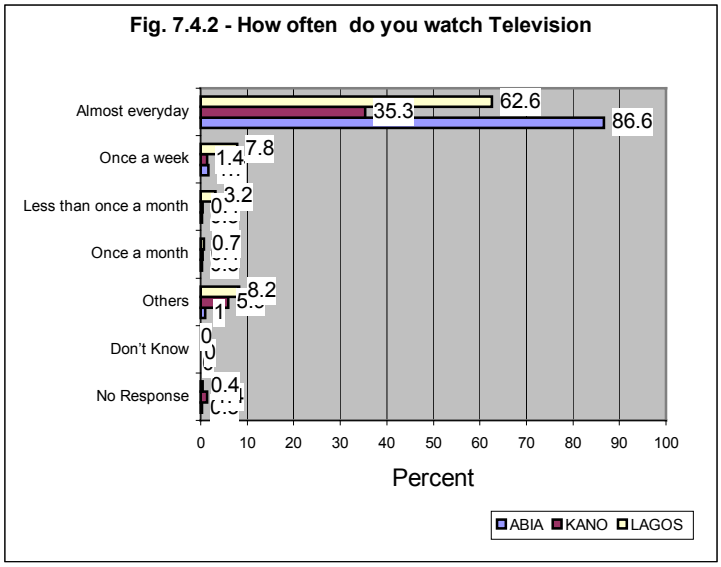


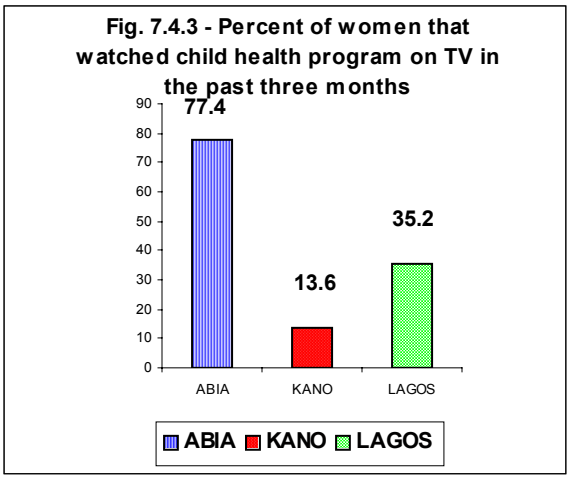
Fig. 7.4.2 - How often do you watch Television
Almost everyday
Once a week
Less than once a month
Once a month
Others
Don't Know
No Response
62.6
35.3
86.6
7.8
1.4
3.2
0.7
8.2
0.4
0
10
20
30
40
50
60
70
80
90
100
Percent
ABIA
KANO
LAGOS

Table 7.4.1: Period respondent watches television most

	ABIA N=292		KANO N=286		LAGOS N=281		Project Area average N=859	
	#	%	#	%	#	%	#	%
Morning	1	0.3	2	0.7	18	6.4	21	2.4
During the Day	13	4.5	1	0.4	42	14.9	56	6.5
Early Evening	105	36	49	17.1	32	11.4	186	21.7
Late Evening	117	40.1	43	15	90	32.2	250	29.1
All Times	24	8.2	6	2.1	37	13.2	67	7.8
Others	3	1	18	6.3	10	3.6	31	3.6
Don't Know	0	0	1	0.4	1	0.4	2	0.2
No Response	1	0.3	6	2.1	2	0.7	9	1.0
Women without access to TV	28	9.6	160	55.9	49	17.4	237	27.6

Table 7.4.2: Favourite TV program

	ABIA N=292		KANO N=286		LAGOS N=281		Project Area average N=859	
	#	%	#	%	#	%	#	%
Drama/Play/Soap Opera	165	56.5	68	23.8	139	49.5	372	43.3
News/Current Events	155	53.1	53	18.5	100	35.6	308	35.9
Family Programmes	164	56.2	32	11.2	78	27.8	274	31.9
Adverts/Commercial	88	30.1	5	1.7	1	0.4	94	10.9
Discussion/Debate/Interview	36	12.3	11	3.8	39	13.9	86	10.0
Requests/Musicals	50	17.1	12	4.2	11	3.9	73	8.5
Sports	36	12.3	1	0.4	24	8.5	61	7.1
No particular show	21	7.2	5	1.7	20	7.1	46	5.4
Others	10	3.4	20	7	23	8.2	53	6.2
Don't Know	0	0	0	0	4	1.4	4	0.5
No Response (including those with no access to TV)	29	10	176	61.5	51	18.1	256	29.8



Other communications channels

The responses regarding sources of messages shown in Table 7.2.1 at the beginning of this section, reveal several other important sources of health information for the women in the survey. For example, fifty-four percent of respondents in Lagos indicated the local newspaper as a source of information on child health. Only one-fifth of the women in Abia and 6 percent in Kano mentioned newspapers. The numbers for Lagos and Kano are consistent with readership levels found among women in the ICHS. However, the findings for Abia are surprisingly low given the high readership cited in the ICHS. It is possible that health planners have not sufficiently exploited this means of communication in Abia.

Sixteen percent of the women in Abia mentioned the school as a source of health information. Eighteen percent of women in Lagos, 8 percent in Abia and 4 percent in Kano state indicated that they got information from local community leaders.

The community health promoter, a potentially important link between communities and health services, was mentioned by 54 percent of women in Lagos, 50 percent in Abia and 14 percent of women in Kano. When asked whether community workers have ever come to the house of the respondent to talk about health issues, 44 percent of women in Abia responded affirmatively, as did 38 percent in Lagos. Only 5 percent said that community workers have talked to them in Kano.

Table…… **Respondents ever visited at home by CHW to talk about child health**

S/N	Response	ABIA N=292		KANO N=286		LAGOS N=281		Project Area Average N=859	
		#	%	#	%	#	%	#	%
1	Yes	127	43.5	13	4.5	106	37.7	246	28.6
2	No	163	55.8	262	91.6	172	61.2	597	69.5
3	No Response	2	**	11	3.9	3	**	15	1.8

Representatives of a number of health organizations visit homes to discuss child health and other related issues. These organizations include multilateral or bilateral agencies, such as the BASICS project and UNICEF, as well as local non-governmental or community groups such as the Community Partnerships for Health (CPH), among others. In Abia, BASICS was observed as the most pronounced programme representative. But for "others", BASICS also was observed to be the most frequently mentioned in Lagos (figure 7.2.1). UNICEF and CPH represent small proportion of these programme representatives maybe because most of the women see the CPHs as synonymous with or representatives of BASICS in these states.

Table 7.2.2 shows the health topics discussed during home visits by community health workers, including representatives of the organizations mentioned above. Two-fifths of the women visited in Abia recalled discussing immunization, breastfeeding, how to care for a sick child, child nutrition and vitamin A. In Lagos, one in three discussed the first four topics and one-fourth talked about vitamin A. Very few women in Kano had been visited by a community health worker at all. A relatively low percentage of women have ever gone out to a community health meeting outside their homes. It is highest in Lagos, at 24 percent, compared with 15.8 percent in Abia and only 4 percent in Kano.

Figure 7.2.1 % Distribution of Organizations that carried out home visits to respondents

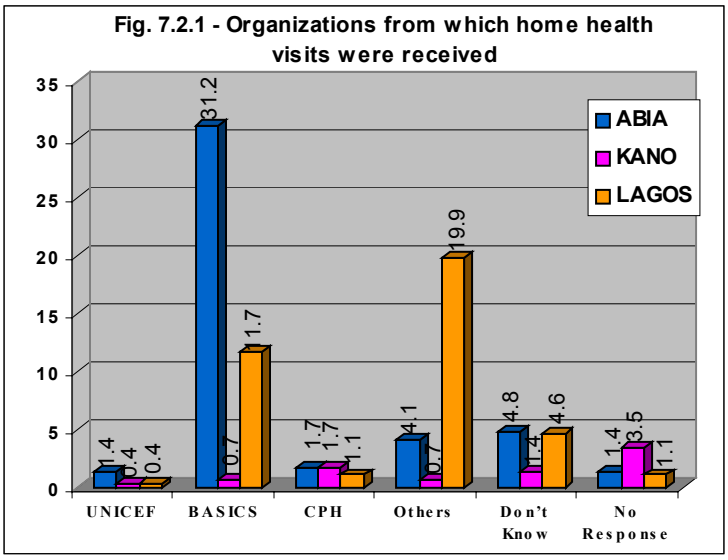


***Table 7.2.2: Issues of discussion during visit**

	ABIA N=292		KANO N=286		LAGOS N=281		Project Area average N=859	
	#	%	#	%	#	%	#	%
Breastfeeding	120	41.1	11	3.8	86	30.6	217	25.3
Immunization	124	42.5	16	5.6	101	35.9	241	28.1

How to care for sick child	112	38.4	12	4.2	83	29.5	207	24.1
What food child should eat	106	36.3	11	3.8	83	29.5	200	23.3
Vitamin A	115	39.4	10	3.5	56	23.5	181	21.1
Others	0	**	1	**	1	**	2	**
Never visited by CHW	165	56.5	270	94.4	175	62.3	610	71.0

** Data suppressed due to small cell size (less than 5 observations)

Significance and Programmatic implication of Findings

The results of this section have clearly brought out the importance of fathers in the health care of their children. More than 60 percent of the respondents in each of the 3 project sites said they had very frequent discussions with their spouses on the health of their children. More than 20 percent in each of the states said approval must first be sought from their husbands before taking the children for any form of health care service. The implication of this therefore is that for any form of attitudinal/behavioral intervention to be successful, the fathers must be taken into consideration.

Another vital finding is the importance of radio in information dissemination. 79-98% claim to have access to working radio and of this number, more than 60 percent listen every day to it. Child health messages could therefore be channeled through this medium especially in the morning hours when most listen to it. Also health professionals came out as very important sources of information in both Lagos and Abia states and so should be taken into cognizance in program planning and implementation.

CHAPTER 4: PREGNANCY, CHILDBIRTH AND NEWBORN HEALTH CARE

[frame entire chapter with intro statement based on Essential Newborn Care package wording; might be helpful to briefly summarize desired behaviours for pregnancy, childbirth and newborn health care;]The number and quality of antenatal care visits are important factors in assuring a successful outcome of birth—a healthy infant. The quality of postpartum care received by both the mother and her infant will similarly have implications for the long-term survival of the child.

The study examined the attitudes and practices surrounding pregnancy and childbirth. The sections that follow also address care of the infant during the postpartum period.

4.1 Antenatal Care

A child's survival is heavily influenced by the level of care received by the mother during pregnancy and delivery. Antenatal care helps to ensure safe gestation and parturition. There is increasing advocacy from government and NGOs, including international agencies like USAID, UNFPA, WHO, for correct knowledge, attitude and practices towards antenatal care. Women who do not use antenatal care services most often experience problems and complications in pregnancy and delivery [—find a citation.] Women in the study area were queried about antenatal care, sources of information on antenatal care and counseling received during pregnancy.

As shown in Fig. 2.1.1, women in all three project sites rated highly the importance of obtaining the advice and care of skilled professionals for their pregnancy such advice and care highly. Ninety-eight percent of women in Abia, 96 percent in Lagos and 83 percent in Kano considered antenatal care very important.

There was a correlation between valuing care (perceived importance) and actual use of antenatal care in both Abia and Lagos (Figure 2.2.1). Ninety-nine percent of the women in Abia state and 96 percent in Lagos claimed to have received antenatal care for their last pregnancy. However, the proportion in Kano state that received antenatal care for the last pregnancy was considerably low (62 %), in spite of the positive attitude toward care shown in the previous table. This pattern may indicate that Kano women lack access to trained providers of antenatal care or that socio-cultural factors constrain women from seeking this service. In all states, percentages are lower for current pregnancy, which may show a delay in seeking antenatal care, particularly in Kano and Lagos states. The NDHS found women were on average 5.2 months pregnant at the time of the first antenatal visit (NDHS 1999).

Table 2.3.1 shows where the women in the survey received antenatal care. Women in the Kano state LGAs obtained antenatal care mainly from a public hospital or clinic (77%), and to a lesser extent from a CPH clinic (9%). In contrast, 63 percent of women in Abia relied on a private hospital or clinic, with 17 percent reporting the public hospital/clinic as their source of care during pregnancy; 10 percent sought care from a nurse/midwife. In Lagos, the traditional birth attendant (TBA) was the third most important source of care (9%), after private (54%) and public (33%) hospital/clinic. Surprisingly, in Lagos 6 percent of women claimed to have received antenatal care from traditional healers, more than the proportion of women who claimed they consulted medical doctors for antenatal care.

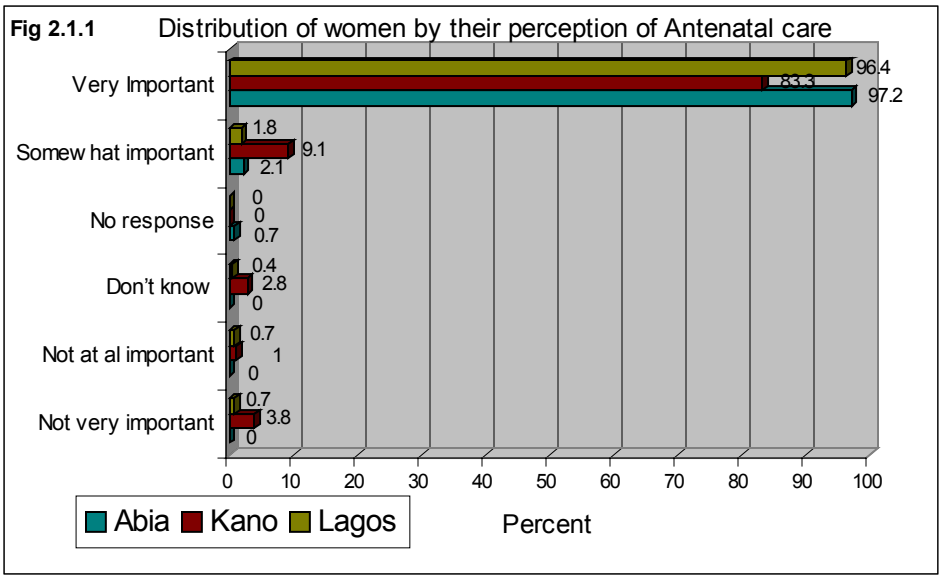
Counseling is an important component of antenatal care that can help to reduce risks associated with pregnancy. During counseling, the expectant mother receives information about conditions that might require intervention and learns about healthy behaviors such as the importance of tetanus toxoid immunization and supplementation. In the current study, the women were asked about the places from which they could receive counseling

for pregnancy (Table 2.4.1). In Abia state, the most common source cited for counseling about pregnancy was mass media; half of the respondents mentioned radio and 37 percent television. Skilled medical professionals—doctors and nurse/midwives—were the next most frequently consulted. One in four women consult with family and friends, particularly their mother and mother-in-law.

In both Kano and Lagos, medical professionals were most often cited as sources for counseling during pregnancy. In Kano, doctors were consulted by almost two of five respondents, and nurse/midwives by one in three. Their mother-in-law and mother provided advice for one-fifth of women and the advice of friends/other relatives was frequently sought.

Similarly, women in Lagos state mentioned doctors and nurse/midwives as the most common source of counseling. One in five seek the advice of their mother and friends/other relatives. Radio, television and CPH clinics were cited more frequently than mothers-in-law (13%).

It is noteworthy that the CPH clinics are more important in Lagos than in the other two sites. This may be because the CPH strategy came much earlier in Lagos than in the other two sites. Traditional birth attendants (TBAs) were mentioned as a source of advice on pregnancy by only 11 percent of women in Lagos, by 6 percent in Kano and by 1 percent in Abia. Though their services are frequently sought at the time of delivery and immediately after, TBAs play a negligible role in antenatal care in the study areas.



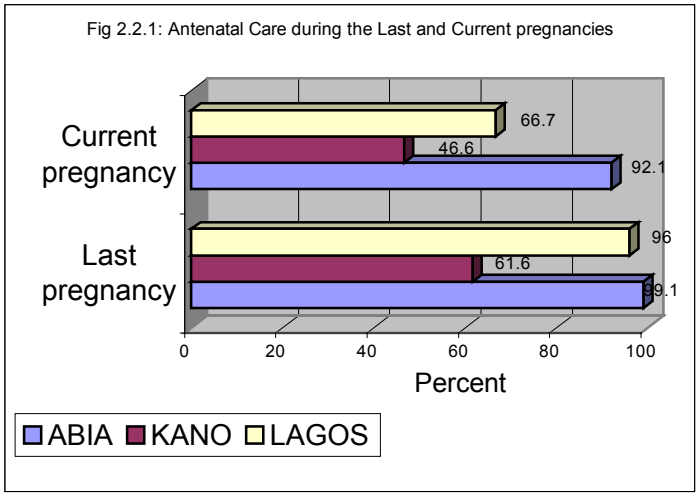


Table 2.3.1: Sources where Antenatal care was received during last and present pregnancy

Sources	ABIA N=290		KANO N=163		LAGOS N=270		Project Area average N=723	
	#	%	#	%	#	%	#	%
Private Hospital/Clinic	184	63.4	6	3.7	147	54.4	337	46.6
Public Hospital/Clinic	50	17.2	126	77.2	90	33.3	266	36.8
Nurse/Midwife	28	9.7	6	**	10	3.7	44	6.1
Doctor	17	5.9	4	**	13	4.8	34	4.7
Traditional Birth Attendant	0	**	1	**	25	9.3	26	3.6
Traditional Healer	1	**	2	**	15	5.6	18	2.5
CPH Clinic	3	**	14	8.6	0	**	17	2.4
Others (including CPH Member, CPH Promoter etc)	7	**	4	**	11	4.1	22	3.0
Total	290	100	163	100	311	115.2	764	105.7

Multiple response question
** Data suppressed due to small cell size (less than 10 observations)

Table 2.4.1 Potential sources of information and counseling on pregnancy

Place	ABIA N=292		KANO N=286		LAGOS N=281		Project Area average N=859	
	#	%	#	%	#	%	#	%
Doctor	103	35.3	109	38.1	149	53.0	361	42.0
Nurse/Midwife	81	27.7	94	32.9	127	45.2	302	35.2
Mother	78	26.7	56	19.6	64	22.8	198	23.1
Mother-in-Law	68	23.3	59	20.6	37	13.2	164	19.1
Friends/ Neighbor/other relatives	52	17.8	51	17.8	59	21.0	162	18.9
Husband	48	16.4	29	10.1	28	10.0	105	12.2
CPH Clinic	17	5.8	19	6.6	50	17.8	86	10.0
Others (CPH Promoter/ Member)	18	6.2	6	**	1	**	25	2.9
Traditional Healer	4	**	14	4.9	25	8.9	43	5.0
Traditional Birth Attendant	3	**	16	5.6	32	11.4	51	5.9
Pharmacy/Pharmacist	37	12.7	9	**	5	**	51	5.9
Patent Medicine Vendor/Chemist	4	**	25	8.7	2	**	31	3.6
Radio	143	49.0	22	7.7	55	19.6	220	25.6
Television	108	37.0	13	4.5	48	17.1	169	19.7

Multiple response question
** Data suppressed due to small cell size (less than 10 observations)

4.2 Delivery

Child survival intervention is incomplete without a serious consideration of delivery conditions and environment of mothers. Whether the child and mother will survive partly depend on these. This section describes levels and patterns of delivery in the project sites.

Place of delivery

[add from NDHS 99: goal of the Global Safe Motherhood Initiative to have labor and delivery attended by trained medical personnel.] Where a mother delivers contributes to the survival chances of her babies. Knowledge of where a woman delivers gives some information about the level of training of the personnel who attended her delivery and the likely quality of services received. In the current study, a specific question was asked about the place of delivery of the babies. Seven possible places were identified apart from "others" and "don't know" categories as contained in Figure 3.1.1.

In Abia state, the private hospital/clinic was clearly the most commonly patronized place of delivery (61 %). It was also the private/hospital clinics that were dominant in Lagos state (49%). On the other hand, in Kano, many women delivered at home (62 %). In the three project sites, the government hospital/clinic constituted a distant second—13 percent in Abia, 18 percent in Kano and 15 percent in Lagos. In Lagos, three other important places of delivery were mentioned namely, "Other homes" (15 %), "my home" (9 %) and "Religious home" (6 %). In Abia, apart from the private and government hospital/clinics, few other places of delivery were cited. This observation is also correct for Kano, where "my home" and government hospital/clinics were most commonly patronized.

In order for programmers to design communication interventions to influence place of delivery, it is useful to understand who influences the pregnant woman in her decision.
Figure 3.3.2 presents the summary of the responses to the question on who assisted the women in making decisions about the place of delivery. The results indicate that medical personnel have little influence on this decision. It is note worthy that the doctors and nurses at hospitals and clinics attended for antenatal care didn't have more influence in this decision. This may perhaps be because women delay in seeking care and the decision as to where to deliver baby may have been made prior to the first visit with husband, friends or relations. In the three project sites, husbands appeared most important in the decision-making process. The proportions of women who said their husbands assisted them were 58.1 percent, 62.7 percent and 63.6 percent for Abia, Kano and Lagos respectively. This is followed by friends/neighbours/other relations in the three project sites (11.2 % in Abia, 9.3 % in Kano and 21.4 % in Lagos). The third most commonly mentioned person of influence was the mother in Abia and Lagos state (10.4 % in Abia, 9.5 % in Lagos), and mother-in-law in Kano (8 %). In Abia state, 8.6 percent of women indicated that medical doctors assisted in deciding on the place of delivery. Doctors were mentioned by 2.7 percent of the women in Kano and none in Lagos.

Fig. 3.1.1 Place where the youngest child was delivered

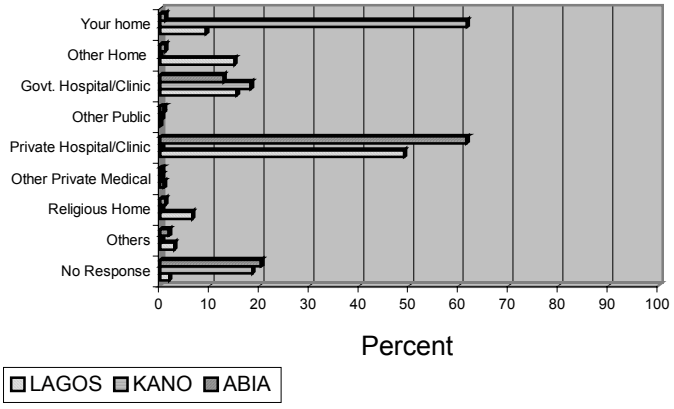
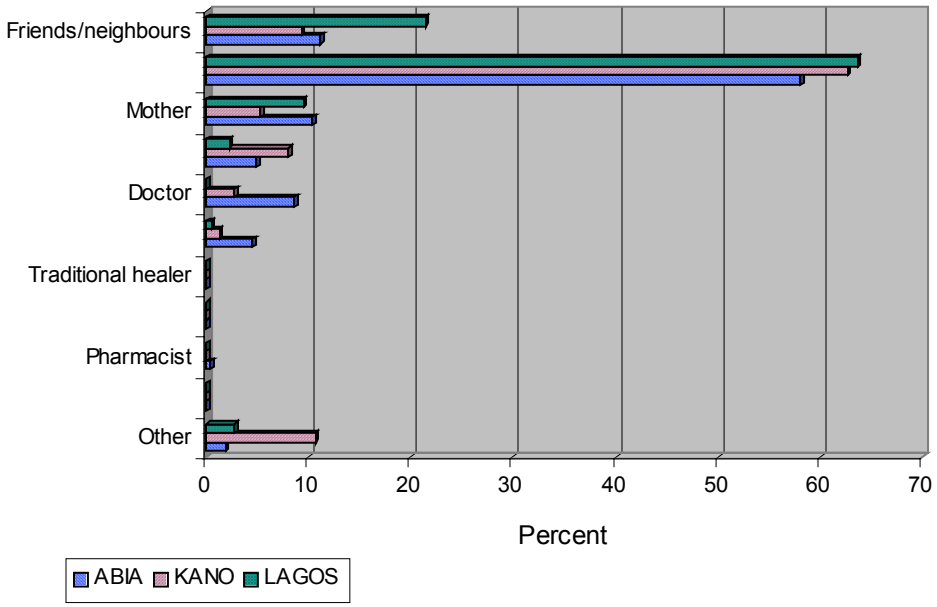


Fig 3.3.2: Persons w ho Assisted in deciding the place of delivery



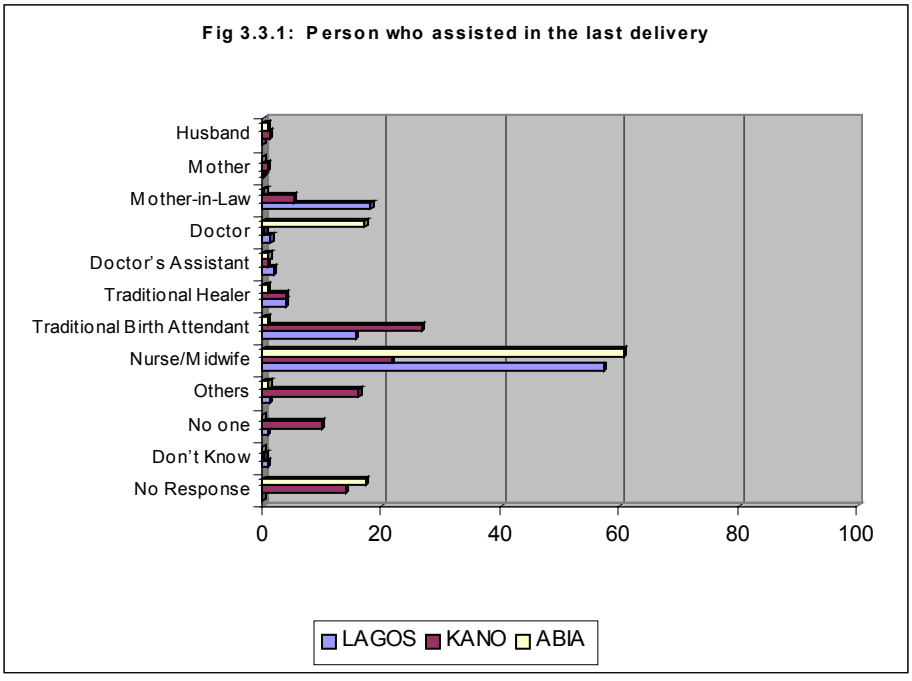
Assistance at last delivery

Women were asked about who assisted them in their last delivery. Figure 3.3.1 shows the range of responses to the question. In Abia state, the most frequently mentioned assistant was the nurse/midwife (60.6 %) followed by doctors (17.1 %). Responses to other categories were generally low. The pattern of responses in Lagos was similar to that of Abia where nurse/midwife was the most frequently mentioned (57.3 %) followed by mother-in-law (18.1 %). However, unlike in Abia, TBAs were mentioned in Lagos state (15.7 %). Traditional healers were mentioned by 4 percent of respondents in both Lagos and Kano.

The most important assistant in child delivery in Kano was the TBA (26.6 %) followed closely by the nurse/midwife (21.7 %). Mother-in-law was mentioned by 5 percent of respondents. It is important to note the relatively high proportion of women who delivered on their own in Kano state ("No one": 9.8 %). This might be an indication of a relatively low level of care for pregnant women in the state. To the statement that "For the delivery of my baby I can get better care at the birth of my baby at home from a TBA/midwife than from a hospital" there was overwhelming disagreement in Abia and Lagos states (96.6 percent in Abia and 79.4 percent, in Lagos) (see Table 6.0 in Appendix).. In Kano state, slightly more than one third completely disagreed but over two-fifths agreed to the statement completely. The reasons many women still patronize traditional health care providers for delivery care in Kano need to be further explored

TBAs' assistance with deliveries

The significance of TBAs should also be noted. They came out as an important contributor in health care provision for pregnant women in Lagos and Kano states. TBAs have been reported to assist with at least five times as many births as they provide antenatal care for (MICS 1999). More in-depth information on the role of TBAs in delivery and postpartum care appears in section 4.3 below.



Findings Significance and Recommendations

The results have shown fathers to be the most important persons in takings decisions on places to deliver and also the place of TBAs in birth assistance was made clear in Lagos and Kano states. These therefore mean that TBAs should be well trained regularly updated on appropriate delivery practices, breastfeeding initiation and newborn care especially in these states. Also fathers should be reached with the right information on delivery so as to help them make with their wives sound decisions on places to go for deliveries.

4.3 Immediate Postpartum Care

The study looked at two important aspects of the postpartum experience among the respondents. Immediate care received at the time of the delivery and in the first few days after birth was examined, with a look at actions taken by the mothers themselves as well as care provided by persons attending the birth. Since this period is generally a time when women receive advice about the longer-term aspects of infant care and illness in young children, the study also looked at the key individuals who provide this advice to mothers.

Care of baby after birth

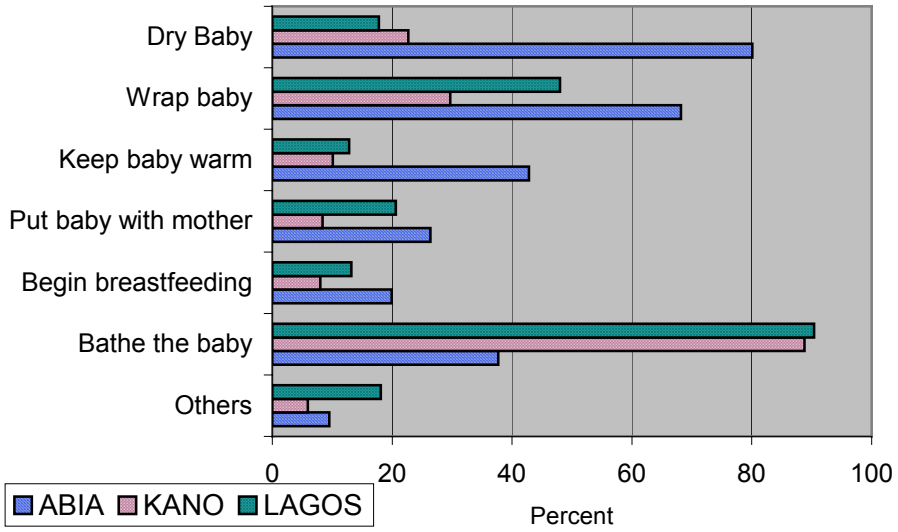
The provision of appropriate care to a baby immediately after birth is critical to his/her survival. Carelessness at this stage of life can result in serious illness and infection or death of the newborn. In this study women were asked questions to assess their knowledge about what needs to be done to ensure the survival and well-being of the newborn. The essential newborn care package recommends that:

- Newly born babies are wrapped in warm clothing.
- Mothers be encouraged to start breastfeeding their babies as soon as possible.
- That the cord be checked regularly (to avoid bleeding).
- Monitoring of the baby's reflexes/breathing patterns.

[see 'essential newborn care' package—elaborate briefly on recommended elements of care]

Figure 3.5.1. depicts the various responses given by the women to the question asked about what needed to be done for the baby immediately after birth (within one hour of birth). Overall, activities relating to general hygiene and comfort (dry/clean/warm-wrap) were most commonly mentioned, while breastfeeding was cited least. In Abia state, the most commonly mentioned activity was "dry the baby" (80.1 %) followed by "wrap the baby" (68.2 %) and "keep baby warm" (42.8 %). The least mentioned activity was "begin breastfeeding" (19.9 %). In Kano state, "bathe the baby" was the most frequently mentioned action (88.8 %). "Wrap the baby" came up as a poor second (29.7 %) and "begin breastfeeding" was the least mentioned (8.0 %). The pattern in Lagos was similar to that of Kano. "Bathe the baby" topped the list (90.4 %) followed by "wrap the baby" (48.0 %). "Begin breastfeeding" (13.2 %) was second to the least mentioned action "keep baby warm"(12.8 %). The responses show that the women were generally knowledgeable about what to do immediately after childbirth. However, the consideration given to immediate breastfeeding is low. Some of the women mentioned "others" category in the three project sites. Two most frequently listed "other actions" were "beat the baby to make him cry" and "check nose to ensure he is breathing".

Fig. 3.5.1 - Action that needs to be taken immediately after birth according to mothers



Care of the umbilical cord

The umbilical cord is a very sensitive organ for the baby at birth and any mismanagement could have a life-long adverse effect on the health of the child. In this study, the women were asked about how they would take care of the cord at home. The responses are contained in Table 3.5.1. In Abia, other than "clean the cord with mentholated spirit" (90%), few treatments were mentioned. Six percent apply oils and 3 percent cited the need to keep the cord dry. In Kano state, "hot dry fermentation" e.g mentholatum, rub etc was mentioned by almost 7 in every 10 women as the action taken at home to take care of the babies' cords, followed by keeping the cord dry (18%). Although other treatments, such as applying oils (8%), cow dung (1 %), and herbs/traditional mixtures" (1 %) were mentioned, they were not significant. In Lagos state, cleaning the cord with mentholated spirit was the most common treatment, mentioned by 89 percent of respondents. This was followed by hot dry fermentation (22 %), applying oil (8.9 %), and applying herbs/traditional mixtures (4%). 24% mentioned "other" which include things like massaging with warm water etc. To discover that some women in the study area still apply soil, cow dung or herbs/traditional mixtures is a cause for concern.

With respect to whether the person who attended the birth put anything on the baby's cord after it was cut, responses varied substantially among the states. (Table 3.5.1) In Abia state, 67.3 percent of the women responded that the birth attendant applied something to the baby's cord after it was cut, primarily a clamp (68%), thread (26%), or cottonwool (3%). In Kano, 19 percent recalled the birth attendant applying something, mostly thread (61 %), mentholated spirit (17%) and cottonwool (6%). In Lagos, 67 percent remembered the attendant putting something on the cord: clamp (41%), mentholated spirit (28%), cottonwool (18%) and thread (12%).

A clamp is a metallic or plastic device placed on the cord prior to cutting to prevent fluid outflow from the child. It is most commonly used on babies delivered in modern health facilities or by health professionals. Other items mentioned include thread, mostly used for babies born at home. In Abia and Lagos an uncommon item was each mentioned: engine oil in Abia and alligator pepper in Lagos. These items are used by traditional and illiterate people and it is widely known that such items can be responsible for infections and/or possibly death. It is also to be noted that to claim that clamp is a material put on the cord after cutting is a demonstration of lack of understanding of the question or a misconception of how it is used on the part of the respondents.

Another question was asked about whether the mother put something on the baby's cord after birth. In Abia, 39 percent of the women, Kano 12.4 percent and Lagos 63.3 percent, recalled that something was put on the cord.

Table 3.5.1: Treatment of umbilical cord at home

	ABIA N=292		KANO N=286		LAGOS N=281		Project Area average N=859	
	#	%	#	%	#	%	#	%
Knowledge of what to do at home to take care of baby's cord								
Clean Cord with mentholated spirit	263	90.1	23	8	249	88.6	535	62.3
Hot Dry Fermentation	3	1	198	69.2	62	22.1	263	30.6
Apply Oils	18	6.2	22	7.7	25	8.9	65	7.6
Keep Cord Dry	8	2.7	50	17.5	6	2.1	64	7.5
Dry Wrapping	0	0	1	0.3	30	10.5	31	3.6
Apply Herbs or Traditional Mixtures	1	0.3	3	1.1	12	4.2	16	1.9
Others(include apply cow dung, soil etc)	13	4.5	26	9.1	67	23.8	106	12.3
Mother put Something on baby's chord sometime after birth	**114**	**39**	**35**	**12.4**	**178**	**63.3**	**327**	**74.7**
Birth Attendant put something on cord after it was cut	**197**	**67.3**	**54**	**18.9**	**187**	**66.5**	**438**	**51.0**
Things Birth Attendant put on Cord after it was cut	**N=197**		**N=54**		**N=187**		**N=438**	
Clamp	133	67.5	0	0	77	41.2	210	47.9
Thread	51	25.9	33	61.1	22	11.8	106	24.2
Mentholated Spirit	2	**	9	16.7	53	28.3	64	14.6
Cottonwool/bandage	6	**	3	**	34	18.2	43	9.8
Others (including Alligator, Pepper Engine Oil etc)	6	**	5	**	7	**	18	4.1
Don't Know	0	**	4	**	8	**	12	2.7

** Data suppressed due to small cell size (less than 10 observations)

Findings Implication/Recommendation

Findings suggest good knowledge of the women on the home-care of neonates umbilical cords. Also the birth attendants seem to be carrying out the correct practice on the assumption that their putting the clamps or thread were just before the cord cutting. The project therefore needs to consolidate on these while the few wrong practices and beliefs should be addressed.

Role of Persons attending birth in breastfeeding practices

Persons attending birth, after ensuring safe delivery of the baby, are expected to ensure that the new mother begins breastfeeding right away and succeeds in breastfeeding her baby. While it is expected that breastfeeding is an important source of nutrition for the newborn, the contemporary position is that if the baby is to get maximum benefit from it, s/he has to start as soon as possible without discarding the yellow thick milk that is first secreted. Colostrum is rich in immune properties needed to protect the child in the first few months of life. It is not yet known how many women take to appropriate breastfeeding practices on account of the assistance they receive from persons attending the birth of their children. This study also examined whether persons attending births assisted mothers in putting the newborn to the breast immediately after birth, i.e., within the first hour of life.

From Figure 3.5.3.1, it was reported that 36.3 percent of the women in Abia were assisted in breastfeeding of the newborn. In Kano, only 13 percent of the women received this assistance, and in Lagos two-fifths were assisted with breastfeeding their babies. Figure 3.5.3.2 shows that in Abia, 69.8 percent of the women started breastfeeding within one hour of birth. The percentage was 54 in Kano and 40 in Lagos. This means that a large proportion of children were still denied early access to this important baby food.

Asked whether the persons that attended the birth had talked to the women about breastfeeding their babies, (Figure 3.5.3.3), 67.5 percent of women in Abia, 16.4 in Kano and 66.5 in Lagos claimed that the birth attendants had talked to them. The good thing here is that on the average, the number of women that initiated breastfeeding rightly is more than those that claimed to have been counseled on breastfeeding generally.

As regards feeding the baby with colostrum, the women were asked whether the persons who attended the birth of their children asked them to feed the babies with “the first thick yellow milk”. In Abia, 85.1 percent said they were told. The proportion was 59.5 percent in Kano and 51.6 percent in Lagos. The responses indicate that many women may not be giving colostrum to their babies. This is a serious gap in breastfeeding practices among women. More discussion on breastfeeding at delivery and up to six months of age is contained in Section 5.1.

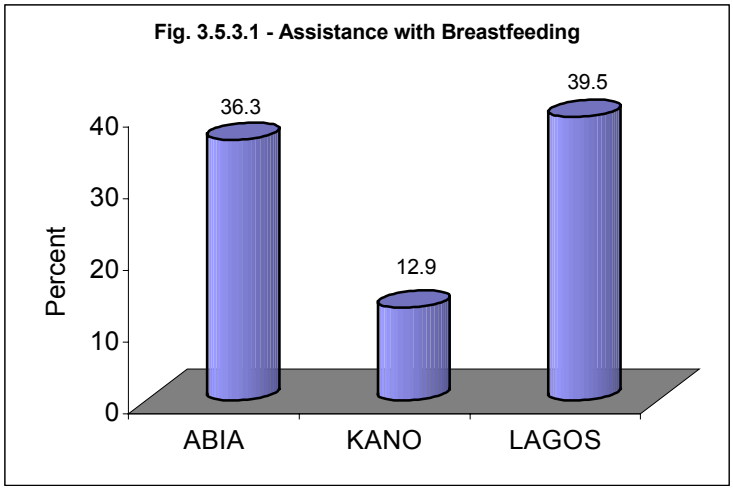


Fig. 3.5.3.1 - Assistance with Breastfeeding
Percent
40
30
20
10
0
36.3
12.9
39.5
ABIA
KANO
LAGOS

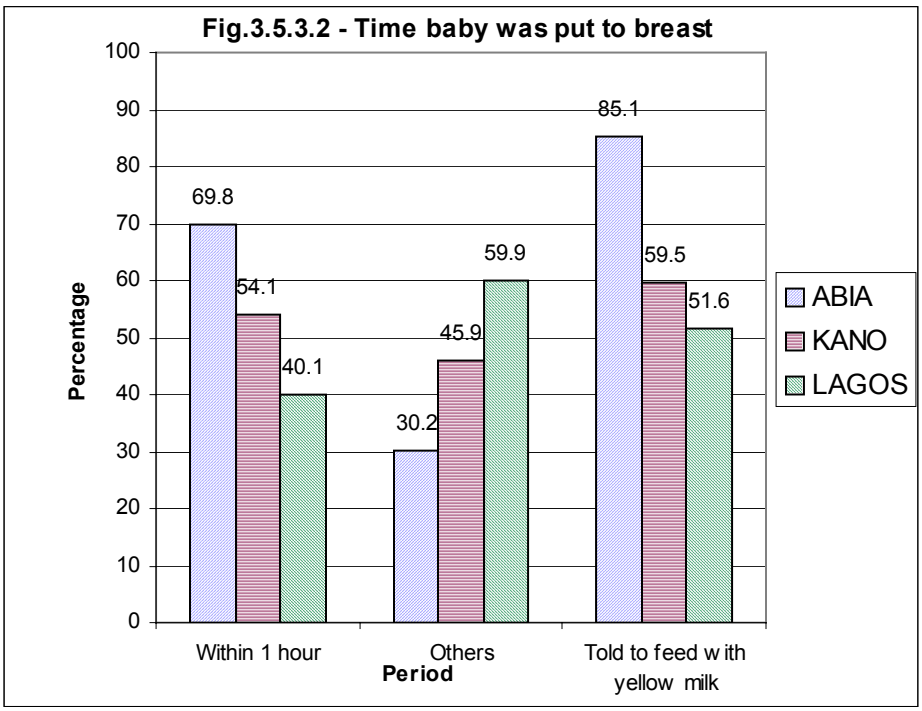


Fig.3.5.3.2 - Time baby was put to breast
Percentage
100
90
80
70
60
50
40
30
20
10
0
69.8
54.1
40.1
30.2
45.9
59.9
85.1
59.5
51.6
Within 1 hour
Others
Told to feed w ith yellow milk
Period
ABIA
KANO
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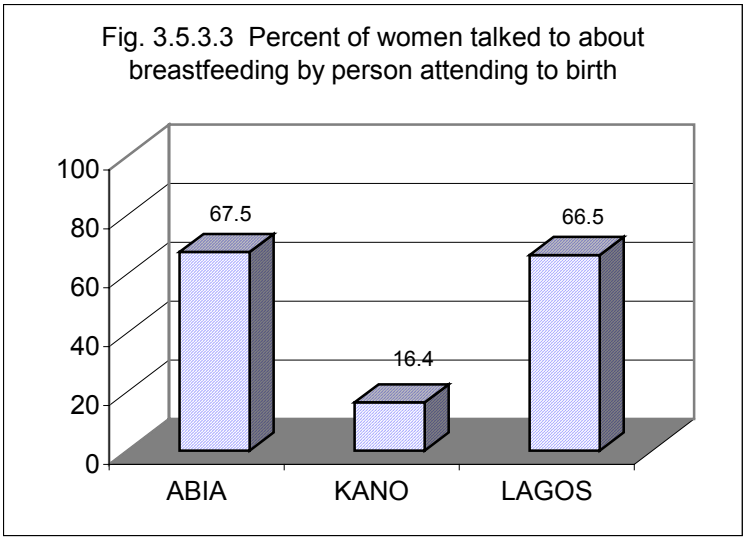


Advice and counseling on care of the newborn

The study also assessed sources mothers consulted for new born care and the types of counseling they received. The results are presented in Figure 4.1.1. In Abia, Kano and Lagos states, 35, 21, and 31 percentage points, respectively, claimed to have consulted people outside the home. The people that were seen by the women were varied: church members, health professionals and health facility staff, friends and relations, including mothers and mothers-in law. Except for Lagos, most of the consultations occurred in the home environment (Table 4.1.1).

A related question was asked about where the women saw the people consulted (see Table 4.1.1). In Abia, 3 percent of the people seen were met in the hospital/clinics and 5 percent in other homes. All of the women were also seen in their own home (100 %). In Kano state, 82 percent of the women claimed that the people they saw came to their home, whereas 12 percent were seen in the hospital/clinics. In Lagos however, the bulk of people seen were met in the hospital environment (92 %) and an insignificant proportion (3%) came home to the women.

Table 4.1.1 : Sources of child care advice received by mothers

	ABIA N=292		KANO N=286		LAGOS N=281		Project Area average N=859	
	#	%	#	%	#	%	#	%
Advice from outside	**102**	**34.9**	**60**	**21**	**87**	**31**	249	29.0
Who Seen for advice	**N =102**		**N =60**		**N =87**		**N=249**	
Friends/Neigbour/Relatives	30	21.4	47	78	0	0	77	30.9
Nurse/Midwife	3	3	3	5	62	71.3	68	27.3
Mother	53	51.9	3	5	0	0	56	22.5
Mother-in-law	21	20.6	4	6.7	2	2.3	27	10.8
Doctors	1	1	2	3	23	0.9	26	10.4
Church Member	11	10.8	**0**	0	0	0	11	4.4
Hospital	0	0	1	1.7	2	2.3	3	1.2
Where seen for advice	**N =102**		**N =60**		**N =87**		**N=249**	
At home	102	100	49	81.6	3	3.4	154	61.8
Hospital Clinic	3	2.9	7	11.7	80	92	90	36.1
No response	0	0	4	6.7	0	0	4	1.6
Other homes	5	4.9	0	0	2	2.3	7	2.8

Table …… Visit of mothers by Birth Attendants

	N=2		N=78		N=40		N=120	
	#	%	#	%	#	%	#	%
Birth Attendant (TBA) came back on visit	2	*	78	100	40	100	120	100
# days after delivery at home before visit by a Birth attendant [TBA]								
1 - 3 days	1	*	66	84.6	40	10	107	89.2
4 - 6 days	1	*	6	7.7	3	7.5	10	8.3
7 - 9 days	0	*	8	10.3	3	7.5	11	9.2
Nature of advice during visit	**N=2**		**N=78**		**N=40**		**N=120**	
Check the cord	2	*	78	100	40	100	120	100.0
Show how to breastfeed	1	*	19	24.4	20	50	40	33.3
Exclusive breastfeeding	1	*	5	6.4	21	52.5	27	22.5
Talk about frequency of feeding	2	*	42	53.8	40	100	84	70.0
Talk about water	0	*	19	24.4	19	47.5	38	31.7
Common breastfeeding problems	1	*	24	30.8	12	30	37	30.8
Attach baby to breast	1	*	15	19.2	17	42..5	33	27.5
Where to go for problems with breastfeeding	1	*	17	21.8	14	35	32	26.7
Danger signs in child illness	1	*	20	25.6	15	37.5	36	30.0

* *data suppressed due to small sample size*

4.4 Role of TBAs in delivery and postpartum care

The TBAs assist women who deliver their babies at home. Their roles have become recognized in primary health care provision nationwide and therefore deserve research attention. Recognizing that a significant number of rural women patronize TBAs for maternity services, government and donor agencies like Unicef and WHO now provide some form of training. The training, typically 2-3 weeks in duration, aims to improve the quality of services provided for delivery and post-partum care. In this study a number of questions were posed to the women to assess their knowledge of TBAs as well as TBAs' performance in reproductive and child health issues. Table 3.4.1 contains the responses to all the questions that the women were asked with respect to the status and services of the TBAs.

Two questions helped to reveal the number of TBAs in each of the three project sites and their status. The first was answered in Figure 3.3.1 above (see Section 4.2), on who assisted the women in delivery, and the second was on whether the TBAs who assisted the women were trained or not (see Table 3.4.1). The responses show that in Abia state, only two women (0.7%) were assisted by TBAs. One of them was trained and the other was not. In Kano, 76 women (26.6%) claimed that TBAs assisted them in their last delivery. Of these TBAs, 40.7 percent were trained, 38.2 percent were not and the status of 21.1 percent of them was not known. In Lagos, 44 women (15.7%) indicated that they were assisted by TBAs in their last delivery. Close to three quarters of them (72.7 %) were trained, 20.5 percent untrained and the status of 6.8 percent unknown.

One of the questions asked to assess the efficiency of TBAs' services was about the time the TBAs arrived at the home of a woman in labour. Arrival of birth attendants before the delivery of the baby is expected but is not always the case.

In Abia, one of the two TBAs arrived before the delivery of the baby. The other woman that claimed to have been assisted by the TBA delivered in the TBA's house. In the project site in Kano, only 23.7 percent of the TBAs arrived before the delivery of the baby while a greater percentage (75.3 %), came after the baby was born. In Lagos state, the pattern is different. Close to 9 in 10 TBAs arrived before the baby was delivered (see Table 3.4.1).

The women were also asked about the various tasks performed by the TBAs during the delivery. There were responses for all the six categories of tasks listed. Not much can be said of the responses from the women in Abia because of the small size of the TBAs. In Kano, "Cut the cord" is the most frequently mentioned task (97.4%) followed closely by "cleaned and bathed the baby" (94.7 %). Thirty-one percent cleaned the mother. Respondents who said the TBAs performed the other three tasks (checked on mother before delivery, delivered baby and put baby to breast) were less than one-third in each case. Unlike in Kano, in Lagos there were generally high responses for virtually all the six main functions. Five of the categories were mentioned by more than 65% of the women. "Cut the cord" topped the list of functions mentioned by the women (98 %). Ninety-three percent "delivered the baby", and 89% checked on the mother before delivery. The least frequently mentioned was "put the baby to breast" (36 %). Clearly, TBAs appear to be carrying out more functions in Lagos than in Kano. This may be related to the much larger proportion of the TBAs that are trained in Lagos as compared to Kano.

Table 3.4.1 also shows the ranges of time the TBAs stayed with the women after delivery. In Kano state, more than 9 in 10 women claimed that TBAs spent between 1 and 4 hours with them. The most frequently mentioned time range is also between 1 and 4 hours in Lagos but the proportion that indicated this was far lower (34.1 %). The high proportion in "others" category (50 %) in Lagos deserves mentioning. A study of the responses recorded under this category showed one particularly positive trend which is that "women delivered in TBAs' houses" in Lagos. This appears to suggest that the TBAs have their maternity homes in Lagos to which women go to deliver their babies.

In a further assessment of the services provided by TBAs, women were asked whether the TBAs came back to check on them. The two TBAs in Abia were reported to have come back some time after the delivery. In Kano state, 82.9 percent of the respondents said that TBAs came back. In Lagos, 61.4 % revisited after delivery. As to the time interval between delivery and the revisit of the TBAs, the most frequently mentioned was between 1 and 4 hours (36.8 %) in Kano state. This was followed by 5 to 9 hours (14.5 %) and 1 day (3 In Lagos state, the response to this question was poor. The only category responded to apart from "No response" and "don't know" categories was 1 to 4 hours (4.5%).

Role of TBAs in postpartum care

Another question was asked to find out the nature of the discussions that the TBAs had with the women while attending to their deliveries. In all the three project sites, the TBAs discussed with the women a variety of topics concerning child care Table 4.2.1). The topics included exclusive breastfeeding, demonstrating how to breastfeed, how to position the baby during breastfeeding, the number of times the baby should feed, checking the cord, handling common breastfeeding problems and knowing where to go when such problems arose, as well as danger signs of illness in the baby. In Kano and Lagos where there were many birth attendants, not all women noted the same level of discussion on all topics with the birth attendants. For instance, all women in the two sites acknowledged that the birth attendants discussed checking of the cord with them. Also, all the women in Lagos said that the birth attendants talked about the number of times the baby should be fed. For other issues, there were variations in the proportions of birth attendants that discussed them as could be seen from the Table 4.2.1..] The low percentage of women that had the TBAs discuss issues on exclusive breastfeeding is of concern since a good number – about 30% patronize the TBAs. The programmatic implication therefore is that strategies will need to be formulated and implemented aimed at reaching the TBAs with the right nutrition messages. They could be encouraged to undergo the community health promoters trainings.

Compensation of TBAs

One useful index of an acceptable service is the benefit that the person giving it derives. The women who were assisted by TBAs in their last delivery were asked whether or not they compensated the TBAs and in what ways they did so (Table ……). Most of the women gave some form of compensation to the TBA. The two TBAs were compensated in Abia. In Kano, 86.8 percent of the TBAs were compensated while 73 percent have been so rewarded in Lagos state. The compensation was in cash and in kind. In Kano, the most frequently mentioned range of cash reward was ₦100 to ₦ 199 (25 %) while the range between ₦300 – ₦499 and ₦ 500 to

₦ 999 were least mentioned (1.3 percent each). A greater proportion of the TBAs (59 %) were compensated with gifts. The gifts were mostly food items including millet, kolanut, pepper and salt. Some women also gave the TBAs soap. In Lagos state, the pattern is strikingly different. All compensation was in cash and close to two-thirds of the TBAs received between ₦1,000 and ₦2,500 as payment for their services. This difference should be expected given the differences in the socio-economic environment of Lagos and Kano.

TABLE 3.4.1: ASSISTANCE DURING DELIVERY/BABY CARE BY TBA

	ABIA N=2*		KANO N=76		LAGOS N=44		Project Area average N=122	
	#	%	#	%	#	%	#	%
Status of TBAs								
Trained	1	**	31	40.7	32	72.7	64	52.5
Untrained	1	**	29	38.2	9	20.5	39	32.0
Unknown	0	**	16	21.1	3	6.8	19	15.6
Time of Arrival of TBA to place of delivery								
Before the baby arrived	1	**	18	23.7	39	88.6	58	47.5
After the baby was born but before cord was cut	0	**	57	75.3	4	9.1	61	50.0
After the cord was cut	0	**	0	0	0	0	0	0.0
others	1	**	0	0	2	2.3	3	2.5
Don't know	0	**	1	1.3	0	0	1	0.8
Task performed by TBA								
Check on you before delivery	1	**	10	13.1	39	88.6	50	41.0
Delivered baby	1	**	18	23.7	41	93.2	60	49.2
Cut the Cord	2	**	75	97.4	43	97.7	120	98.4
Cleaned and Bathed the Baby	2	**	73	94.7	38	86.4	113	92.6
Put baby to your breast	2	**	20	26.3	16	36.4	38	31.1
Cleaned the mother	2	**	23	30.3	29	65.9	54	44.3
Others	0	**	2	**	0	0	2	**
Length of time TBA stayed at the time of delivery								
1 – 4 hours	0	**	61	90.8	15	34.1	76	62.3
5 – 9 hours	0	**	2	2.6	5	11.4	7	5.7
10 – 48 hours	0	**	0	**	2	**	2	**
Others	1	**	0	**	22	50	23	18.9
Don't know	1	**	5	6.6	0	**	6	4.9
Revisit by TBA after delivery								
TBAs Came back?	2	**	63	82.9	27	61.4	92	75.4
Time of revisit by TBAs after delivery								
1 – 4 hours	1	**	28	36.8	2	**	31	25.4
5 – 9 hours	0	**	11	14.5	0	**	11	9.0
10 – 14 hours	0	**	2	**	0	**	2	1.6
15 – 23 hours	0	**	2	**	0	**	2	1.6
1 day	0	**	3	**	0	**	3	2.5
2 days	0	**	2	**	0	**	2	1.6
3 – 4 days	0	**	0	**	0	**	0	0.0
Others	1	**	18	23.7	20	45.5	39	32.0
No response	0	**	10	13.2	22	50	32	26.2

** *data suppressed due to small sample size*

Abia to be disregarded because of small sample size

Table 4.2.1: Discussion of TBAs with mothers

SOURCE – Talk to you about :	ABIA		KANO		LAGOS		Project Area average	
.	N=	2	N=	78	N=40		N=120	
	#	%	#	%	#	%	#	%
Checking the cord	2	**	78	100	40	100	120	100.0
Importance of frequent feeding	2	**	42	53.8	40	100	84	70.0
How to breastfeed	1	**	19	24.4	20	50	40	33.3
Attaching baby to your breast	1	**	15	19.2	17	42.5	33	27.5
Common breastfeeding problems	1	**	24	30.8	12	30	37	30.8
Not giving water or other liquids	0	**	19	24.4	19	47.5	38	31.7
Exclusive Breastfeeding	1	**	5	6.4	21	52.5	27	22.5
Where to go for problems/questions about breastfeeding	1	**	17	21.8	14	35	32	26.7
Danger signs in child illness	1	**	20	25.6	15	37.5	36	30.0

*** data suppressed due to small sample size*
Abia to be disregarded because of small sample size

Table ……TBA Compensation

	ABIA N=2*		KANO N=76		LAGOS N=44		Project Area average N=122	
	#	%	#	%	#	%	#	%
Compensate TBA?	2	*	66	86.8	32	72.7	100	82.0
Gave cash	2	*	57	75	32	72.7	91	74.6
Cash gift (Naira)								
< 100	0	*	6	7.9	0	**	6	4.9
100 – 199	0	*	19	25	1	**	20	16.4
200 – 299	0	*	16	21.3	0	**	16	13.1
300 – 399	0	*	1	**	2	**	3	**
400 – 499	0	*	1	**	0	**	1	**
500 – 999	0	*	1	**	1	**	2	**
1000+	2	*	0	**	28	63.6	30	24.6
Gifts (kind)	1	*	45	59.2	0	**	46	37.7
Others	0	*	2	**	0	**	2	**

Abia to be disregarded because of small sample size.
***Data suppressed due to small cell size (less than 5 observations)*

4.5 Neonatal Illness

World wide, approximately 4 million babies die before they are one month old... (WHO 2001 estimate, Olowe et al 1983) In the first month of life, infants have a high probability of exposure to various kinds of infections that could be fatal if not promptly diagnosed and treated. One of the objectives of the KAP study is to assess the women's knowledge of cord and tetanus infections.

General signs of illness

Women were asked to list the symptoms in the new baby that indicate that the baby is sick. The responses are shown in Figure 4.3.1.1. There are many symptoms of sicknesses in a newborn identified by the respondents in the three project sites. The most frequently mentioned is high fever (temperature). In Abia, 68.8 percent of women mentioned it, 64.7 percent in Kano and 77.9 percent in Lagos. Apart from high fever, there are other symptoms, which were more common in Abia than in the other two project sites. For instance in Abia, almost 60 percent of the women identified stopped or difficult feeding as a symptom indicating sickness. This proportion is much higher than those of Kano and Lagos. Again, more than a third of the women in Abia identified vomiting as a symptom of sickness whereas in Kano only 13.3 percent mentioned it and just 5.3 percent in Lagos. In Abia, the proportion of women that mentioned lethargy and restlessness is 38.0 percent compared with 12.9 percent in Kano and 19.6 percent in Lagos. Other symptoms of sickness that were identified by more women in Abia than in either Lagos or Kano include difficult/rapid breathing 29.1 percent and fit or convulsion 18.5 percent.

Umbilical cord infections

The respondents were also requested to mention symptoms for umbilical cord infections in new babies. The same set of symptoms that were listed as indicators of sickness were listed as symptoms of cord infection. Foul smell/discharge from the cord is the most frequently mentioned in the three sites: 81.2 percent mentioned it in Abia, which was the highest, 48.2 percent in Kano and 33.8 percent in Lagos. Another symptom of cord infection mentioned by many women in Kano was redness of the skin around the cord (37.4 %); 22.3 percent of the women identified this symptom in Abia. The proportion of women who identified this symptom in Lagos was very low (3.2 %). In both Abia and Kano states, high fever was mentioned by many women (Abia 15.8 %, Kano 15 %). In Lagos a significant proportion of women claimed that lethargy/restlessness was a symptom of cord infection in a newborn (13.9 %). A very small number of women in all the project sites mentioned fit or convulsion as a symptom—1.7 percent in Abia, 0.7 percent in Kano and 3.8 percent in Lagos. Surprisingly in Lagos, a high proportion of women expressed ignorance of symptoms of cord infection in newborn (31.3 %). The proportion is 10.5 in Kano and 5.5 percent in Abia (see Figure 4.3.1.2).

Tetanus infections

The women being interviewed were shown a picture of a disease in infants to identify. Though it is difficult to fully portray the signs of tetanus (e.g. spasms) with a still photo,

respondents were shown a photo similar to those used in Nigerian health facilites to educate people about tetanus. They were then asked whether they had seen a baby with that disease before. Respondents' answers are presented in Table 4.3.1. In Abia, 46.6 percent of the women claimed to have seen it, 22.4 percent in Lagos and 18.9 percent in Kano. When the respondents were asked to give the name of the disease, 24.8 percent in Kano identified it as tetanus, 11.3 percent in Abia and 6.4 percent in Lagos (Table 4.3.1). Thus, there is an overwhelming expression of ignorance of the name of the disease in the three project sites. [See comments from Reviewer 1 to add some more meaning to the data: "...the number who claim to have seen it very high and noteworthy...find the per cents who call it tetanus quite high and not at all an expression of ignorance of the name of the disease...am mystified that in Abia nearly half claimed to have seen it but only 11% could give it a name."The prevent who identified the disease as tt may have been higher is more appropriate photo had been used]

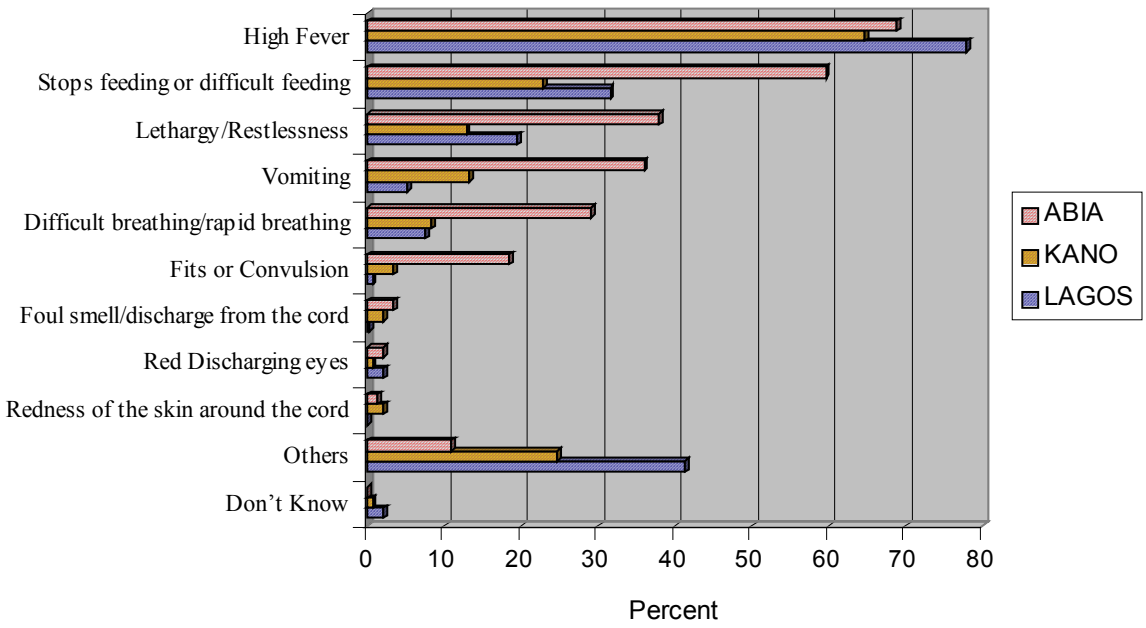
A further question was asked about the cause of tetanus and a number of answers were given (Table 4.3.1). In Abia state, 40.9 percent of the respondents claimed that tetanus could be caused through the use of dirty instruments, 37.7 percent said through wounds and 32.5 percent attributed it to infections. In Kano, the corresponding proportions for these three causes were 13.5 percent for dirty instruments, 13.5 percent for wounds and 16.9 percent for infections. In Lagos the proportions were 26.1 percent for dirty instruments, 29.4 percent for wounds and 23.5 percent for infections. The other causes mentioned which did not attract a significant proportion of responses included uvulectomy and tribal scaring/tatoulage. In all published works on tetanus especially in Kano, there is generally poor knowledge and causal association of unsterile instruments as to the cause of tetanus. Cliterectomy, uvulectomy, tribal marks and circumcisions are surgical procedures that are carried out in unhygenic premises using unsterile instruments. Some esducated people still consult thes "surgeons" at home.

Program implications of findings

A good proportion of the respondents generally have satisfactory knowledge of the signs of neonatal illness but Lagos figures on symptoms of cord infection calls for concern – don't know group (31.3%). Also the causes of tetanus as expressed by Lagos and Kano women suggests the need for a strategy for reaching the women with the right information.

On the protection of newborns from tetanus, Lagos respondents again demonstrated their need for better information. Health workers in both public and private health institutions could be of use since these women mainly patronize them for their antenatal and delivery service needs.

Fig. 4.3.1.1- Symptoms of sickness in a newborns



[what were 'others' for Lagos (41%) and Kano (25%)?]

"Others" includes : crying too much, Dullness, Cough, Catarrh etc.

Fig. 4.3.1.2 - Symptoms of cord infection in a newborn

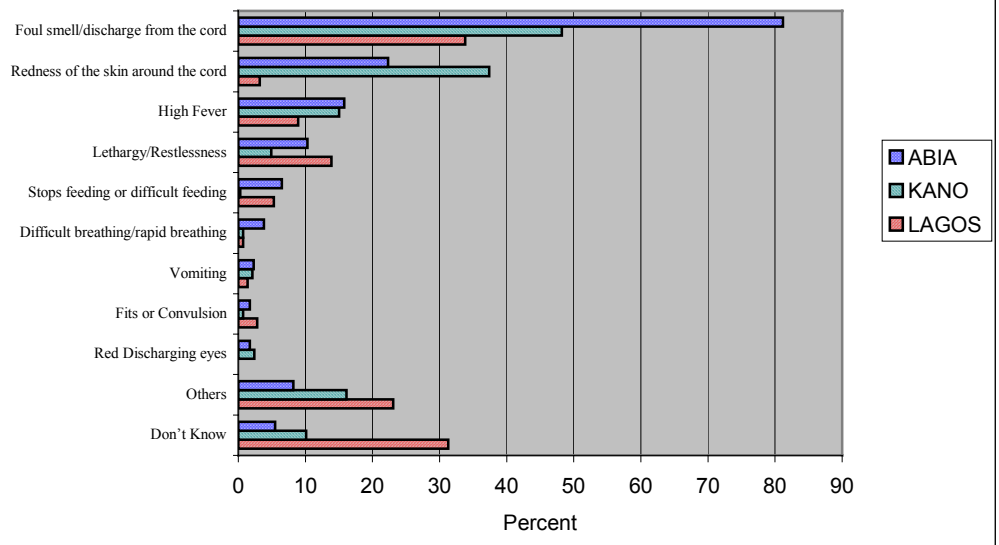


Table 4.3.1: Knowledge of tetanus infection

	ABIA		KANO		LAGOS		Project Area average	
	N = 292		N = 286		N = 281		N=859	
	#	%	#	%	#	%	#	%
Seen a baby with this disease	136	46.6	54	18.9	63	22.4	253	29.5
Name of disease:	N = 292		N = 286		N = 281		**859**	**100**
Tetanus	33	11.3	71	24.8	18	6.4	122	14.2
Other	113	38.7	1	0.3	71	25.3	185	21.5
Don't Know	144	49.3	208	72.7	187	66.5	539	62.7
No Response	2	0.7	60	21	5	1.8	67	7.8
Cause of Tetanus:	*N = 252		*N = 89		*N = 211		**552**	**64.3**
Cutting cord with dirty instrument	103	40.9	12	13.5	55	26.1	170	30.8
Wounds	95	37.7	12	13.5	62	29.4	169	30.6
Infection	82	32.5	15	16.9	50	23.7	147	26.6
Uvulectomy	5	2	0	**	0	**	5	0.9
Tribal Scarring/Cutting/Tattooing	1	**	1	**	3	**	5	0.9
Clitorectomy	0	**	0	**	0	**	0	**
Other	18	7.1	9	10.1	51	24.2	78	14.1
Don't Know	16	6.3	70	78.7	52	24.6	138	25.0
Protection of newborn from tetanus	N = 252		N = 89		N = 211			
Vaccination for baby	208	82.5	56	62.9	26	12.3	290	52.5
Vaccination for mother	52	20.6	40	44.9	57	27	149	27.0
Others	26	10.3	6	6.7	147	69.7	179	32.4

* *People that have ever heard of tetanus.*
** Data suppressed due to small cell size (less than 5 observations)

CHAPTER 5 INFANT AND CHILD HEALTH: NUTRITION

NOTE: Areas captured by the ICHS have been removed from this report e.g. time of initiation of breastfeeding and practice of EBF. Remove

5.1 Breastfeeding

In the earlier part of this report, reference was made to the role of traditional birth attendants (TBAs) in the training of mothers of newborns on how to appropriately feed the baby on breastmilk. In this section, the interest is in the knowledge and attitude of the women to breastfeeding issues. The issue of colostrum in the nutrition of infants has recently been publicized as crucial in achieving improved survival chances for the baby.

One of the questions posed to women in the study with respect to breastfeeding was on whether they gave colostrum to their newborns or not. Interestingly, the proportion of those women who claimed that they gave colostrum to their babies was relatively encouraging considering the importance to the well being and survival of the newborn (Figure 5.1.1). Indeed, some mothers did not believe in giving babies colostrum anyway because they have reservations about its benefits. Among the reasons why mothers would not give colostrum to their babies as shown on Figure 4.4.3 is that colostrum is not good for them. This opinion was held by 71.2 percent of women in Lagos, 68.4 percent in Kano, and 43.8 percent in Abia. As a matter of fact in Kano, it was claimed by some women that colostrum made babies sick (15.8 %). More than a quarter of women in Abia, said they were following the advice given to them that they should not give colostrum. In Kano state, 5.3 percent of the respondent expressed a similar opinion and 7.7 percent of women in Lagos maintained this position.

The women were also asked about their knowledge of the content of breastmilk. A small proportion of women in the three sites reported that breastmilk has no water. The bulk of women however said that breastmilk had enough water that met the need of the baby—in Abia 59.2 percent, in Lagos 64.1 percent and in Kano 29.4 percent. A reasonable proportion of women claimed that breastmilk had some water, but which was not enough. About 60 percent of women in Kano made the assertion. This was 38 percent in Abia and 31.3 percent in Lagos (Table 4.4.1).

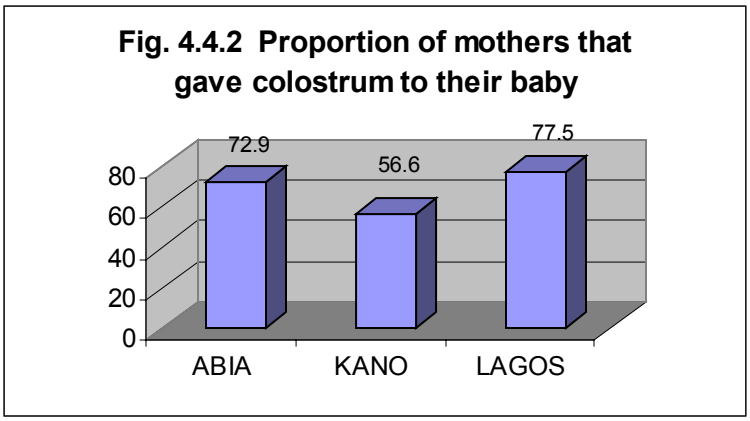
Further questions were asked about the knowledge of the women on what is currently called exclusive breastfeeding. In Abia, 95.9 percent claimed to have heard about it, 54.9 percent in Kano and 72.2 percent in Lagos. In fact, a number of definitions were suggested. For instance, 45 percent of the women in Abia, 21 percent in Kano and 29.1 percent in Lagos said that exclusive breastfeeding implies “breastfeeding only without other liquids for six months”. Some other women in these three project sites said exclusive breastfeeding is “breastfeeding only without other liquids”. The proportions of those who gave this definition were 47.5 percent in Abia, 43.9 percent in Kano and 16.3 percent in Lagos. Other definitions appeared to be mere description of the breastmilk. For instance in Lagos, 23.6 percent of the women said “it is good/make them grow healthy and strong” (see Table 4.4.2). A follow-up question to this was asked to find out whether

a mother should give a baby under six months water in addition to breastmilk. There was an overwhelming affirmation of this position—93.7 percent in Kano state, 76.5 percent in Lagos state and 70.9 percent in Abia state. These responses call for attitudinal programmatic concern because some of the women who claimed that breastmilk had enough water still believed in giving water to infants under 6 months in addition to breastmilk.

Another general statement was that "A girl does not need to be breastfed for as many months as a boy". There was an overwhelming disagreement to this statement in all the project sites although the disagreement was least in Kano. The proportions in Abia and Lagos were the same (82.2 %) and Kano 57.7 percent. This means that there was an overall support for equity and equality between the sexes with respect to infant feeding.

One last statement considered for this report is the presence of the belief that "Breastfeeding children makes the breast of the woman sag faster". This statement is borne out of the general notion among men that the firmness of the breast is reduced as a result of too much breastfeeding, and many men would not want their wives to breastfeed for a long time. Women in this survey were asked about their opinion about the statement. In the three project sites, there was complete disagreement with the statement among a good percentage of women. Thirty-five percent of women in Abia, 53.8 percent in Kano and 59.8 percent in Lagos completely disagreed with the statement. However, one-fifth of the respondents agreed with the statement, suggesting that this perception may be contributing to the poor breastfeed practices in the study area.

On who to approach with their breastfeeding problems, It is clear from the Table 4.4.3 that the women would prefer health professionals particularly doctors and nurses. In Abia, 66.1 percent of women would want to consult the doctors, 48.3 percent in Kano would also want to meet the doctor and 64.8 percent in Lagos state. The proportion of women who would go to nurses was also 23.6 percent in Abia, 17.8 percent in Kano and 33.8 percent in Lagos. Other persons that would be consulted include relations particularly mothers and mothers-in-law as well as friends and neighbours.



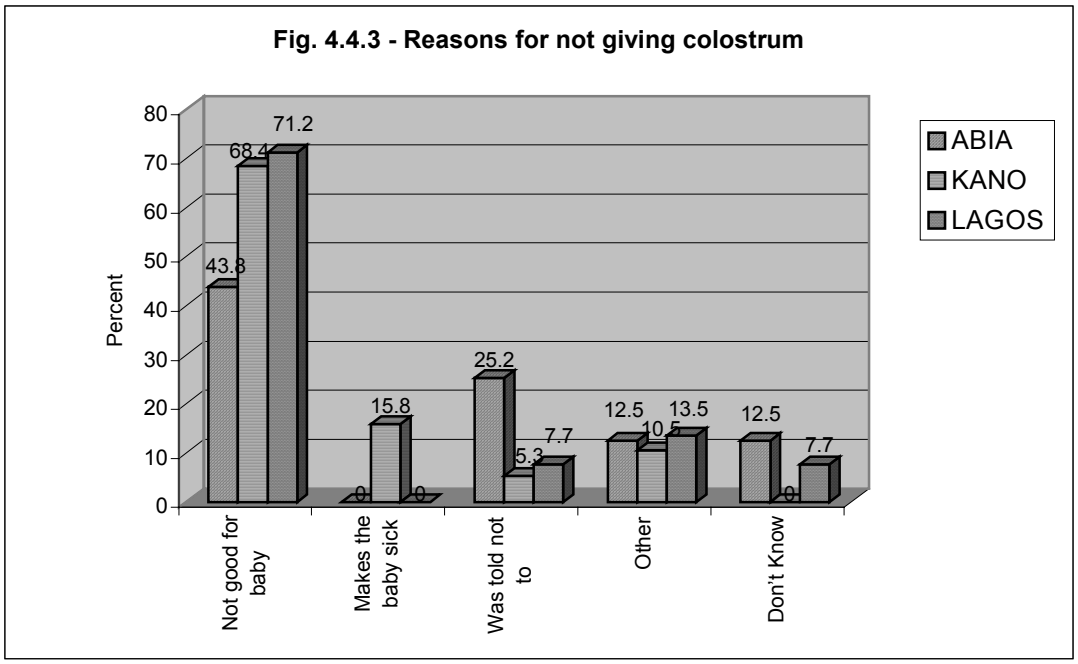


Table 4.4.1: Opinion about the content of breastmilk

Content of breastmilk	ABIA N=292		KANO N=286		LAGOS N=281		Project Area average N=859	
	#	%	#	%	#	%	#	%
Has no water	5	1.7	20	7	4	1.4	29	3.4
Has some water but not enough	111	38	171	59.8	88	31.3	370	43.1
Has enough water to meet needs	173	59.3	84	29.4	180	64.1	437	50.9
Don't Know	3	**	2	**	9	**	14	1.6
No Response	0	**	9	**	0	**	9	**

*** Data suppressed due to small cell size (less than 10 observations)*

Table 4.4.2 : Meaning of exclusive breastfeeding

	ABIA *N=280		KANO *N=157		LAGOS *N=203		Project Area average N=640	
	#	%	#	%	#	%	#	%
Breastfeeding only without other liquids for six months	126	45	33	21	59	29.1	218	34.1
Breastfeeding only without other liquids.	133	47.5	69	43.9	33	16.3	235	36.7
It is good/make them grow healthy and strong	1	**	4	2.5	48	23.6	53	8.3
Breastfeed regularly/well	1	**	0	**	16	7.9	17	2.7
Give breast milk	1	**	5	**	11	5.4	17	2.7
I don't know	2	**	20	12.7	0	**	22	3.4
Others	5	**	19	12.1	24	11.8	48	7.5
No response	11	3.9	7	**	12	5.9	30	4.7

**Persons that have ever heard of "Exclusive Breastfeeding"*

*** Data suppressed due to small cell size (less than 10 observations)*

Table 4.4.3 : Persons to consult on breastfeeding problems

Person met when faced with breastfeeding problem	ABIA N=292		KANO N=286		LAGOS N=281		Project Area average N=859	
	#	%	#	%	#	%	#	%
Doctor	193	66.1	138	48.3	182	64.8	513	59.7
Nurse/Midwife	69	23.6	51	17.8	95	33.8	215	25.0
Mother	21	7.2	23	8	21	7.5	65	7.6
Friends/Neighbour/Relatives	1	**	41	14.3	17	6	59	6.9
Mother-in-law	6	**	31	10.8	8	**	45	5.2
TBA	1	**	4	**	8	2.8	13	1.5
Others (TBA, CPH Member, CPH Promoter, CPH Clinic Staff & Breastfeeding Counselor)	8	**	43	15.0	25	8.9	76	8.8
Don't Know	0	**	3	**	2	**	5	0.6

*** Data suppressed due to small cell size (less than 10 observations)*

5.2. Complementary Feeding

The traditional practice in many parts of Nigeria with regards to infant nutrition has been that new babies are fed on both breastmilk and complementary food. However, the improvement in knowledge has introduced another and better approach to infant feeding, namely that newborn should be exclusively breastfed for the first six months of life before introducing complementary food. The practice of early introduction of food/water reduces breastmilk intake resulting often in decreased ability to fight infections and increase the chances of exposure to pathogens, a major cause of diarrhoeal diseases and mortality. One of the objectives of this study is to examine the pattern of infant feeding, see the extent to which infants are breastfed and find out whether the practice of exclusive feeding has been established or that the practice of combining breastmilk with complementary food persists.

The first question that was posed was to ask if infants are being fed with other foods and liquids in addition to breastmilk. The evidence in this study from Figure 4.5.1 is that in all the project sites, some proportions of women are combining other food and liquids with breastmilk. In Abia, 61.3 percent of women were in this category while in Lagos the proportion is 78.3 percent and 59.1 percent in Kano.

As to the age of the child when this combined feeding was introduced, the data showed that children were being fed with complementary food right from the first month of life (Figure 4.5.2). In Abia, 53.6 percent of women claimed that their babies were given other foods and liquid in addition to breastfeeding in the first 1-3 months and almost 47.7 percent of the women in Lagos also said that. The proportion of this group of women was 19.5 percent in Kano. The figure also showed that a number of women introduced complementary feeding between the ages 4 and 6 months. In Kano state, 34.3 percent of the women introduced complementary feeding to their youngest children at this age. The proportion is 31.3 percent in Abia and 26.8 percent in Lagos. The high figure for the 'No response' category in Kano is due to the number that could not remember when they initiated complementary feeding and also women that did not respond at all to the question.

The question was then asked as to what would be a good indicator that a child is eating enough food. About two-thirds of the respondents in all the project sites felt that a child that was eating enough food would grow well and another one third felt that such infants would be active, full of energy and life (Table 4.5.1)

Fig. 4.5.1 Percentage of infants given other foods and liquids in addition to breastmilk

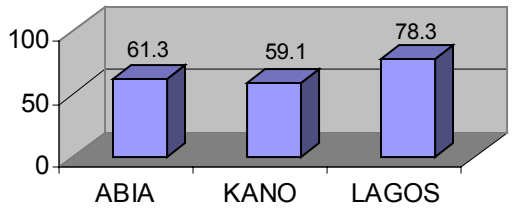


Fig. 4.5.2 - Age at which complementary feeding started

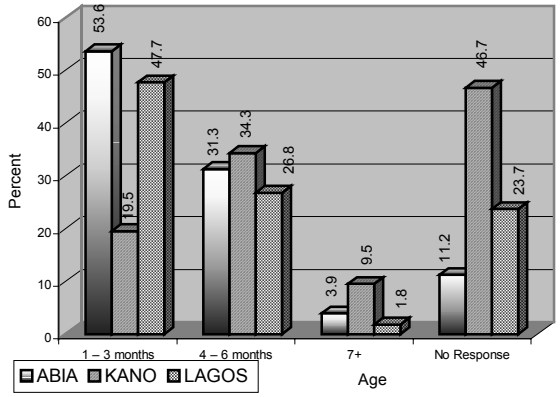


Table 4.5.1: Indicator that child is eating enough food

Indicator for eating enough food	ABIA N=292		KANO N=286		LAGOS N=281		Project Area average N=859	
	#	%	#	%	#	%	#	%
He is growing well	190	65.1	190	66.4	184	65.5	564	65.7
He is active, plays well	97	33.2	95	30.2	85	30.2	277	32.2
Others	2	**	0	**	34	12.1	36	4.2
Don't Know	3	**	4	**	12	4.3	19	2.2

*** Data suppressed due to small cell size (less than 10 observations)*

Please add programmatic implications of findings & recommendations
Written after the section on vitamin A

5.3 Vitamin A

Vitamin A is one of the micronutrients essential for child development and welbeing. It's deficiency is the main cause of preventable blindness in children. It plays an important role in strengthening the body's resistance to infections, and children who are vit. A deficient suffer an increased risk of death and illness, particularly measles and diarrhoea. Studies have shown that improving the Vit. A status of children (6-72 months) dramatically increases their chances of survival by:

- Reducing all-cause mortality by 23% (Beaton G.H et al 1993)
- Reducing measles mortality by 50% (Maclaren D.S and Frigg M. 1997)
- Reducing dirrhoea disease mortality by 33% (Maclaren D.S and Frigg M. 1997)

Women were asked to identify the supplementary food (vitamins & minerals) items that could lead to satisfactory growth of infants. The most frequently mentioned was vitamin A (see Figure 4.5.3). Vitamin A was mentioned by 74 percent of respondents in Abia, 41 percent in Kano and 21 percent in Lagos state. Other minerals mentioned were iron and iodine. Satisfactory growth might be denied children without these food supplements. The large percentages in Lagos and especially Kano who answered 'don't know' calls for a programmatic attention. Indeed, the study sought to know the effect of inadequate intake of supplements. The respondents clearly indicated that children without vitamins fall sick very often. As shown in (Table 4.5.2) 45.2 percent of women in Abia claimed that lack of vitamin in children could lead to frequent sickness, 32.9 percent maintained this position in Kano and 36.3 percent in Lagos. Other likely effects on infants that lacked adequate intake of vitamins were the possibility of slow recovery from illnesses and the chances that the child could go blind. The large percentage of 'Others' for Lagos is made up of the different forms of ill health and eye problems mentioned by the respondents.

To ensure that infants obtain enough vitamin A, he must be given the supplements and also food rich in vitamin A. In Abia, the two reasons were given by 43 and 50 percent respectively of women (Figure 4.5.4).In Lagos, 21 percent cited supplements and 32 percent food rich in vitamin A, and in Kano, these numbers were14 percent and 32 percent. Most notably, over half of women in Kano and one-third in Lagos did not know how to ensure that their infants obtain enough vitamin A.

The women were further asked where to obtain the supplementation. Table 4.5.3 contains the various responses. One of the responses was that vitamin A supplementation is usually given along with immunizations like polio. This reason was not strongly upheld in Lagos state where only 6 percent of the women said one could obtain vitamin A supplementation with other immunizations. 29.8 percent of women in Abia state and 13.6 percent in Kano advanced immunization exercise as an avenue of obtaining vitamin A supplementation. The most important source of obtaining vitamin A supplementation was said to be the health center. While over a quarter of women mentioned this source in Kano and Lagos state, close to three-fifths of women gave this as source in Abia state.

Other sources that were mentioned particularly in Lagos included pharmacies and chemists (7.8 percent and 14.6 percent respectively). In Kano, chemist was another good source (9.4 %). [At time of the survey, where was Vitamin A actually available? Were Vitamin A supplements widely available through the vaccination program yet, especially in Lagos, where that response is very low?]. The NIDs were yet to hold in Lagos state at the time of the survey and so it is understandable to have very few responses on Vitamin A being received with Immunization.

The respondents were asked how often a child should receive vitamin A supplementation. The responses were depicted in Figure 4.5.5. While 59.3 percent of women from Abia claimed that the supplementation should be taken every six months and 30.4 percent said so in Kano, surprisingly, Lagos women expressed ignorance about how often supplementation should be given to infants. About 50 percent of them claimed not to know and 43 percent said it could be anytime. Only 6 percent of women in Lagos were of the view that vitamin A supplementation could be taken every six months.

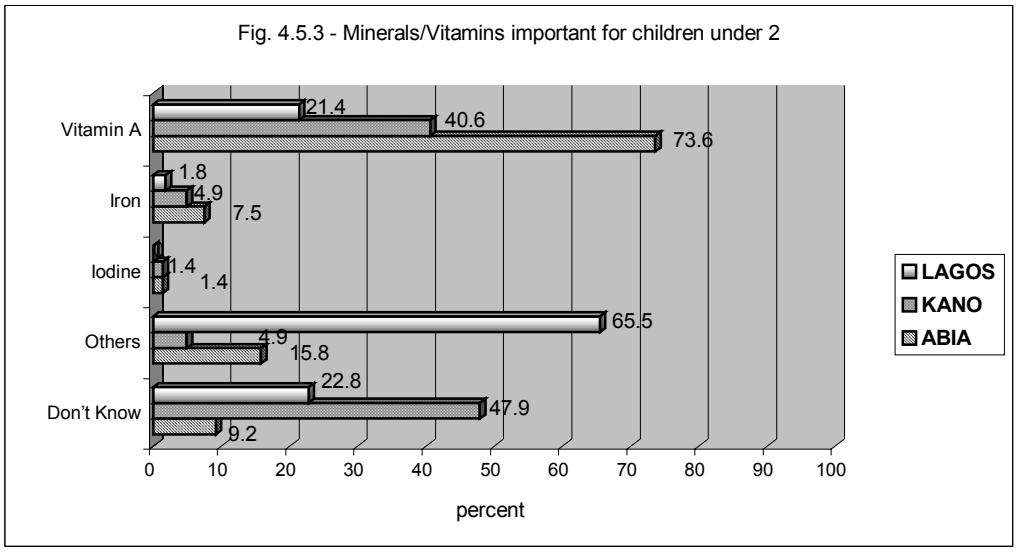


Table 4.5.2: Effect of insufficient vitamin A on baby or child

Effect of lack of Vitamins on Children	ABIA N=292		KANO N=286		LAGOS N=281		Project Area average N=859	
	#	%	#	%	#	%	#	%
Get sick more often	132	45.2	94	32.9	102	36.3	328	38.2
Can become blind	92	31.5	7	**	22	7.8	121	14.1
Don't recover quickly from illness	24	8.2	26	9.1	**	2.8	58	6.8
Other	14	4.8	12	4.2	52	18.5	78	9.1
Don't Know	31	10.6	148	51.7	102	36.3	281	32.7

*** Data suppressed due to small cell size (less than 10 observations)*

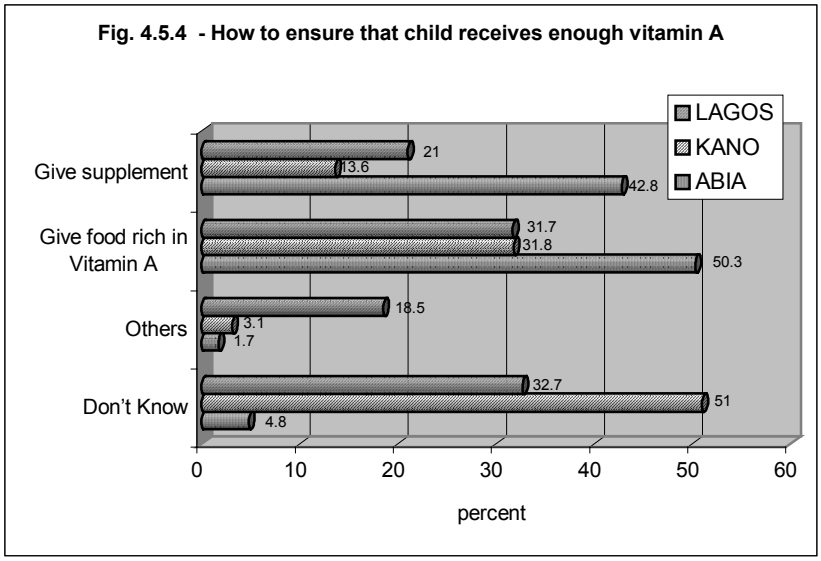
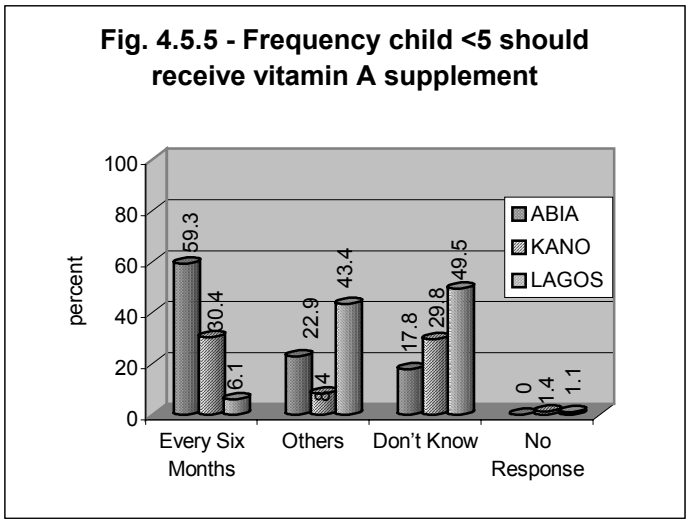


Table 4.5.3: Place where vitamin A supplement can be obtained

	ABIA N=292		KANO N=286		LAGOS N=281		Project Area average N=859	
	#	%	#	%	#	%	#	%
At Health Centres	168	57.5	75	26.2	75	26.7	318	37.0
With Immunizations	87	29.8	39	13.6	17	6	143	16.6
From Chemist/PMV	8	**	27	9.4	41	14.6	76	8.8
Through Community Health Workers	10	3.4	2	**	4	**	16	1.9
From Pharmacies	1	**	4	**	22	7.8	27	3.1
Others	0	**	7	**	64	22.8	71	8.3
Don't Know	20	6.8	136	47.6	78	27.8	234	27.2

*** Data suppressed due to small cell size (less than 10 observations)*



Findings Implications and Recommendation

(i) Complementary feeding

The implication of the findings is that since virtually all children have commenced complementary feeding by age 7 months, the children have the chances of good general development and wellbeing. However, the fact that more than 50% of the children start taking other foods /fluids in the first three months of life is something injurious to their health and so should be addressed by the project. They should be made to know the following:

- That complementary feeding should commence at the age of 6 months.
- Locally available foods rich in energy, protein, iron and vit A. and prepared in good hygienic conditions should be the bases of complementary feeding.
- Need for increased nutrient density and quality of traditional complementary foods by adding oils, groundnuts and/or appropriate animal products and vitamin rich fruits and vegetables.
- The changes in the types and frequency of complementary food at different ages i.e. at 6, 9, and12 months.
- The need to continue with breastfeeding during these periods up to 24 months.

(ii) Vitamin A. Supplementation

A good number of the respondents especially from Kano seem to lack knowledge on Vit A. generally and so strategies at addressing this should be devised and implemented.

CHAPTER 6: INFANT AND CHILD HEALTH: IMMUNIZATION

NOTE: Areas captured by the ICHS have been removed from this report e.g. immunization coverage and possession of vaccination card. Remove

Child immunization has become an important issue in child survival strategy. Currently, much attention is focused on the level and patterns of immunization in the country. Indeed, the Federal Government has set aside National Immunization Days (NID) to ensure adequate coverage at the national level for polio immunization. Routine immunization, considered among the most cost-effective means of reducing child mortality, is a primary focus of the BASICS/Nigeria project.

The women were asked about their experiences in the vaccination centers (Public and Private Health facilities) to see if the health care providers carry out their expected duties. This was to also give an idea of the training needs of these workers. The responses are shown in Table 4.6.1.The responses to these various actions were higher in Abia state than in either Kano or Lagos state. Kano state generally had lower responses. The most frequently mentioned events in Abia were "recorded the vaccination" (98.5 %) and "asked about child's health" (98.2%).These were followed closely by "Told name of vaccine", "what it protects from", "told when to come back" and "wrote it down", all at 97.8%. The least frequently mentioned is "child got vitamin A" (84.8%). In Kano, the most frequently mentioned event was "asked questions about the child's health" (62.6%), followed by "recorded the vaccination"(59.3 %), and "told me when to come back" (58.8%). As in Abia, the least mentioned is "child got vitamin A" (35.2%). In Lagos "recorded the vaccination" topped the list (98 %), followed by "told when to come back" and "wrote it down" (97.2% and 95.2% respectively), and "asked about health of the child" (89.1 %). Again, the least frequently mentioned was "child got vitamin A" (34.3 %). The patterns demonstrated are generally what is expected.

Generally, it is expected that Immunization Centers manned by skilled providers, should have vaccines available for child immunization. However, it was reported in this study that there were instances when vaccines were not available for use by health professionals for child immunization. In Abia state, 14 percent of the women mentioned the non-availability of vaccines in the expected source and 12.1 percent in Lagos and 6.6 percent in Kano (Figure 4.6.4).

The respondents were further asked to specify places where vaccines were not available and responses are as in Table 4.6.2. In Abia state, 58.6 percent mentioned government primary health care center, 52.7 percent said so in Kano and 61.8 percent in Lagos. More than a quarter of the respondents mentioned that vaccines were not available for child immunization in general hospitals in Kano state. 19.5 percent said that there were no vaccines in private hospitals in Abia state and in Town Hall (9.8%) in the same state. That vaccines were not available in health facilities for child immunization is a revelation of poor health conditions particularly for the infants in Nigeria.

As discussed earlier, immunization is a way of minimizing or eradicating vaccine-preventable diseases. Opportunities to vaccinate may be missed if women believe a child with fever or illness should not be immunized. To investigate the prevalence of this belief, women were asked to state whether they agree or disagree with the following statement: "a baby or child should not get any immunization when he is sick". More than 50 percent of the women in all the states completely agreed with the statement, that is, that sick children should not be immunized. In each of the three states, fewer than 1 in five women completely disagreed with the statement (table 6.0). These findings imply that misperceptions that sick children should not be immunization may have led many mothers not to present their children for immunization. This certainly will have a negative impact on the immunization coverage in the project area.

Recommendation:
A strategy to positively address this misconception of not immunizing a sick child should be developed and implemented by the project. This could be through messages in the media e.g. jingles, training and use of volunteer health promoters etc.

Table 4.6.1: What happens at the vaccination center

	ABIA N=277		KANO N=182		LAGOS N=248		Project Area average N=707	
	#	%	#	%	#	%	#	%
Ask about health of the child	272	98.2	114	62.6	221	89.1	607	85.9
Weigh the child	257	92.8	84	46.2	225	90.7	566	80.1
Record the vaccination	273	98.5	108	59.3	243	98	624	88.3
Tell name of Vaccine	270	97.8	77	42.3	187	75.4	534	75.5
Tell what it protects from	271	97.8	83	45.6	187	75.4	541	76.5
Tell when to come back	270	97.8	107	58.8	241	97.2	618	87.4
Write down when to come back	270	97.8	98	53.8	236	95.2	604	85.4
Child gets vitamin A capsule	235	84.8	64	35.2	85	34.3	384	54.3

*** Data suppressed due to small cell size (less than 10 observations)*

Fig. 4.6.4 Percentage distribution of non-availability of vaccines in health facilities

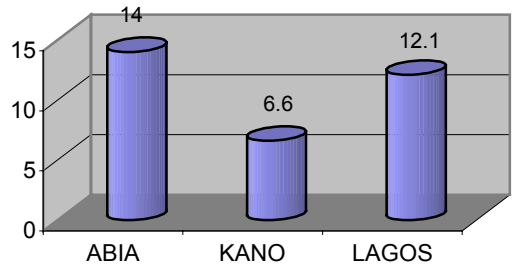


Table 4.6.2: Place where vaccine was not found

	ABIA N=41		KANO N=19		LAGOS N=34		Project Area average N=94	
	#	%	#	%	#	%	#	%
Health Centre	24	58.6	10	52.7	21	61.8	55	58.5
Private Hospital	8	**	2	**	3	**	13	13.8
General Hospital	2	**	5	26.3	4	**	11	11.7
Town Hall	4	**	0	**	1	**	5	**
Others	1	**	2	**	1	**	4	**
No Response	2	**	0	**	4	**	6	**

** Data suppressed due to small cell size (less than 10 observations)

CHAPTER 7: INFANT AND CHILD HEALTH: CHILDHOOD ILLNESS

7.1 General

Integrated Management of Childhood Illnesses (IMCI) is a comprehensive strategy for addressing childhood health care. It attempts to capture and manage all sicknesses that can be detected in a child at any particular visit. In this study, a number of questions were posed to examine the general disposition of the respondents to child health care in the three project sites.

A child could fall ill at the most unexpected time. Women were asked what they would do in a situation when a child falls severely ill beyond what mothers could handle immediately. Table 5.1.1 shows the various categories of responses that include call for or go to community health worker, go to government or private hospital/clinic, call or go to nurse/midwife or traditional healer and go to chemist or pharmacy. There were variations by project sites in the actions the respondent would take if unable to respond to a child's illness by herself. In Abia state, there were two important actions that could be taken. The most important was go to private hospital clinic (69.5 %) or a government hospital/clinic (16.8 %). Women could also go to a community health worker (5.8 %). In Kano on the other hand, more than three-quarters of women would go to a government hospital/clinic, while 11.2 percent would patronize chemist/patent medicine vendors. The actions women would take in Lagos area are similar to those expressed in Abia state except that the government hospital/clinic topped the list (52.3 %) and women who would go to private hospital clinic constituted 40.2 percent. Although the proportion of women that would go to traditional healers was small, it was of interest to note that an appreciable proportion of women go to traditional healers in Kano state (3.5 %), and 1.4 percent in Lagos state.

Table 5.1.1: Action usually taken when child is severely ill

Action usually taken when child is severely sick and mother could not manage it.	ABIA N=292		KANO N=286		LAGOS N=281		Project Area average N=859	
	#	%	#	%	#	%	#	%
Go to a government hospital/clinic	49	16.8	215	75.2	147	52.3	411	47.8
Go to a private hospital/clinic	203	69.5	16	5.6	113	40.2	332	38.6
Go to a chemist/patent medicine vendor (PMV)	6	**	32	11.2	8	**	46	5.4
Go to community health worker's place of work	17	5.8	0	**	3	**	20	2.3
*Other	18	6.2	22	7.7	25	8.9	65	7.6
Don't know	0	**	1	**	0	**	1	**

** *Data suppressed due to small cell size (less than 10 observations)*

*Others include; Go to Nurse/midwife, Call for a nurse/midwife to come to the home, Call for a community health worker to come to the home, Call for a community health worker to come to the home, Go to traditional healer, Call for a traditional healer to come to the home and Go to a pharmacist.

7.2 Diarrhea Management

The women were asked what they would do if their children had diarrhea. The most common suggestion in Abia state was to give home made oral rehydration solution (ORS) (64 %), followed by going to the hospital clinic (16.8 %), and giving antibiotics (15.1 %) or pre-packed oral rehydration salts (12.9%). The proportion of women who would give home made solution was also the highest in Lagos (42 %), followed by those who would go to a hospital clinic (14.9 %) and those who gave pre-packed oral rehydration salts (11 %). This latter item was the most commonly mentioned in Kano (25.9 %), followed by antibiotics (22 %) and home made solution (14 %). It was observed that more than 6 percent of women in Kano mentioned traditional medicine, 2.5 percent gave it in Lagos and 0.3 percent in Abia state (see Table 5.2.1).

Oral rehydration therapy is an effective method of managing diarrhea particularly in the home setting, but it requires that women know how the solution for diarrhea management is prepared. Women were asked to mention the ingredients that would be used in preparing the solution at home to treat child's diarrhea. Table 5.2.2 gives the summary of the responses. In all the project sites, at least 90 percent of the women mentioned sugar, salt and water, which implied that most women were knowledgeable about the correct ingredients of this home made solution. It is however not known from the study if the women are aware of the right quantities of ingredients, how to prepare the solution, or how much to give to the child.

A more direct question was asked to find out whether the women had heard about the pre-packed oral rehydration salts. The women in Kano had the highest positive response (77.3 %) followed by Lagos (73.0 %) (Figure 5.2.1). Three in every five women in Abia state had heard about it. Indeed, 66.1 percent of women in Kano claimed that they had given pre-packaged ORS to their under-five children and about equal percentages of women in Lagos and Abia states had done so (55.6 percent in Lagos, 54 percent in Abia).

To further assess the depth of knowledge of the women about the use of ORS in treating diarrhea, a question was asked about how soon the women began ORS treatment when their children under five years had diarrhea. Figure 5.2.2 shows the summary of the responses. Most women in the three project sites said immediately (80.1 percent, 64.2 percent and 63.2 percent respectively in Kano, Abia and Lagos). These high proportions fell dramatically for those who claimed to start the use of ORS after one or more days, implying a high level of knowledge in the three project sites of the importance of beginning oral rehydration at the onset of diarrhea.

Programmatic Significance/Recommendation

1. Majority of the women tend to mainly patronize Public and Private health clinics/hospitals when their children are sick and so the project should pay attention on these centres in terms of service quality improvement programs. In Kano, PMVs

came up as important care givers and so should equally be considered in program planning and implementation.

2. It is also important that the project ensures that the mothers go beyond the knowledge on ORS ingredients to the right quantities, ideal method of preparation, the frequency and quantity to be given to a child.

Table 5.2.1: What mother did the last time child had diarrhea

	ABIA N=292		KANO N=286		LAGOS N=281		Project Area average N=859	
	#	%	#	%	#	%	#	%
Gave home made solution	187	64	40	14	118	42	345	40.2
Gave (pre-packed) oral rehydration salts	35	12	74	25.9	31	11	140	16.3
Tried to breastfeed	0	**	2	**	1	**	3	**
Gave antibiotics	44	15.1	63	22	23	8.2	130	15.1
Gave traditional medicine	1	**	18	6.3	7	**	26	3.0
Took child to hospital/clinic	49	16.8	17	5.9	42	14.9	108	12.6
Did nothing	0	**	2	**	1	**	3	**
Never had diarrhea	53	18.2	80	28	72	25.6	205	23.9
No Children < 5	3	**	1	**	3	**	7	**
Others	6	**	21	7.3	10	3.6	37	4.3
Don't know	2	**	2	**	3	**	7	**

*** Data suppressed due to small cell size (less than 10 observations*

Table 5.2.2: Knowledge of ingredients for preparing ORS at home

Ingredients for preparing ORS	ABIA N=292		KANO N=286		LAGOS N=281		Project Area average N=859	
	#	%	#	%	#	%	#	%
Sugar, Salt and water	267	91.4	256	89.6	258	91.9	781	90.9
Others	0	**	1	**	1	**	2	**
Don't know	0	**	0	**	1	**	1	**
No response	25	8.6	29	10.1	21	7.5	75	8.7

*** Data suppressed due to small cell size (less than 10 observations*

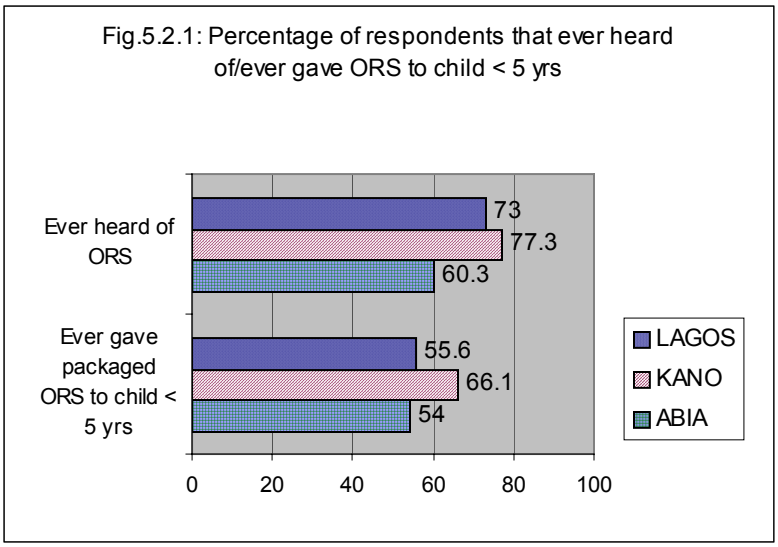
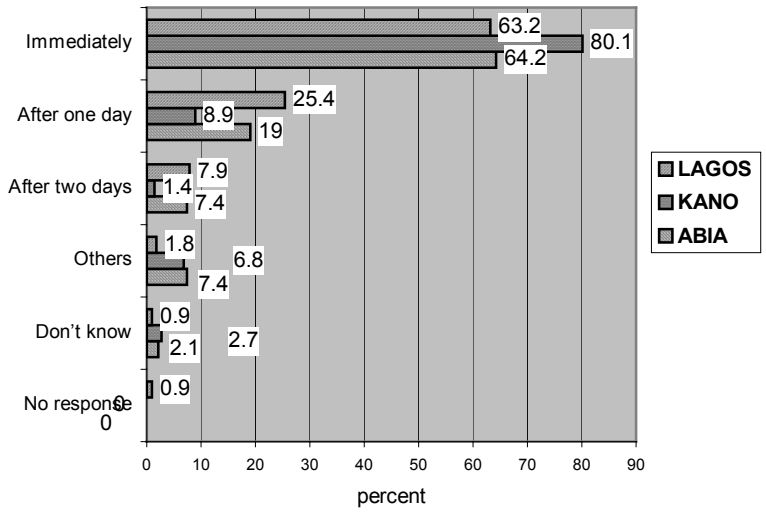


Fig.5.2.1: Percentage of respondents that ever heard of/ever gave ORS to child < 5 yrs
Ever heard of ORS
Ever gave packaged ORS to child < 5 yrs
73
77.3
60.3
55.6
66.1
54
0
20
40
60
80
100
LAGOS
KANO
ABIA

Fig. 5.2.2 - Time ORS given to child with diarrhea.



7.3 Malaria Management

Although malaria is preventable, easily treated and curable, it remains one of the leading causes of morbidity and mortality in the country. It has a prevalence rate of 919/100,000 with minimal variations between the rural and urban centres. Transmission of malaria is stable and perennial in all parts of the country. Studies from the situation analysis conducted by the FMOH indicated that 96% of care-givers initiate action within 24 hours but only 15% of such actions are appropriate. Apart from this inappropriate management, lack of proper knowledge on prevention, when to seek professional care and financial incapacitation of most Nigerians are thought to be contributory factors to the relatively high prevalence rate. Questions aimed at verifying these were therefore posed to the respondents.

A general question on the women's knowledge of malaria was asked. As expected, and shown in Figure 5.3.1, virtually all surveyed women claimed to have heard about malaria (99.3 % in Abia, 81.5 % in Kano and 96.8 % in Lagos). Those who claimed to have heard about malaria were asked other questions, detailed in figure 5.3.1. For example, a question was posed to the women to assess their knowledge of the symptoms of malaria. In Abia and in order of priority, 92.4 percent of women mentioned fever/High Temperature as symptom, 71 percent mentioned loss of appetite and 61.7 percent general weakness. while over a quarter mentioned chills. In Kano, while fever/High Temperature was still the most common symptom mentioned (86.3 %), followed by general weakness of the body (17.2 %) and chills (15.9 %). In Lagos, the most frequently mentioned symptom of malaria was also fever/high temperature (72.1 %), followed by general weakness (30.9 %). Chills and loss of appetite were mentioned by about equal proportions of women (24.6 % chills and 23.5 % loss of appetite).

Many children are treated for malaria at home and the women were asked about the type of malaria treatment they give their children. There are two common treatments in the three project sites (see Table 5.3.1). The first is chloroquine (Abia 62.8 %, Kano 56.7 %. Lagos 44.9 %). The second most commonly mentioned treatment was the use of panadol or paracetamol (45.6 % in Lagos, 32.1 % in Abia and 27.9 % in Kano). Traditional herbs and drinks were also mentioned by an appreciable number of women (10.7 % in Lagos, 4.3 % in Kano and1.7 % in Abia). Abia women mentioned the use of Fansidar as a treatment at home more than the other two sites (6.9 % in Abia, 1.5 % in Lagos and 0.9 % in Kano). [What is the prevalence of chloroquine resistance in these states?] (Studies conducted in the eastern part of the country indicated a high chloroquine resistance of 90% in Abia state (Ezedinachi 1989) The "others" category constitute an appreciable proportion. For instance, 32.4 percent mentioned "other" in Lagos, 10.7 percent in Kano and 10 percent in Abia. These "others" were found to include Syrup, antibiotics, bonababe, capquine, daraprin, doctor's prescription, feroquine, alfan, injection kidquine and maloxine. [check spelling of all medicines here and in Table 5.3.1] DONE

While treatment of malaria at home was recognized and practiced widely, some malaria cases could exhibit signs that might require emergency treatment outside the home. When

respondents were asked about those signs of malaria that required emergency treatment, the most commonly mentioned sign was a fever that does not go away. In Kano state, 90.6 percent of women mentioned that, 97.3 percent in Abia and 70.2 percent in Lagos (see Table 5.3.1). From this, one can safely conclude that the women have relatively good knowledge on when to seek care from a skilled professional.

Women were asked about the causes of malaria. In the three project sites, mosquitoes stood out clearly as the most important cause mentioned by the women. Other causes identified by the women include: in Abia, poor sanitation (54.1 %), poor diet (11.4 %) and too much sun or heat (9 %); in Kano state, poor sanitation (6.9 %), too much heat or sun (4.3 %), and poor diet (2.1 %); in Lagos state, too much heat or sun (15.4%), overwork (10%), and poor sanitation (8.8%)(Table 5.3.1). The Lagos results is unexpected, only 48% linked malaria to mosquitoes. It may be that some of them took the question to mean the predisposing factors but in any case, the finding seems to present some opportunity for program intervention in the area of awareness creation.

When the causes of malaria had been identified, the next question was posed to assess the women's knowledge of preventing malaria. There were differences in the order of importance of ways to protect children against a malaria attack in the three sites (see Figure 5.3.2). In Abia state for instance, 76.2 percent mentioned the use of a mosquito net, followed by 59.3 percent of women who mentioned the need to keep the area around the house clean and dry, and use of coil (11.7 %). In Kano, 77.3 percent of women mentioned the use coils and 35.2 percent the use of mosquito nets, while keeping the area around the house clean and dry was mentioned by 8.6 percent of the women. About a third of the women in Lagos mentioned the use of mosquito nets and one-fifth mentioned keeping areas around the house clean and dry, while about 10 percent mentioned the use of coils (figure 5.3.2).
No explanation for the high % of don't know in Kano

Significance of Findings/Recommendations
The findings in this section on malaria suggests that majority of the women have some good knowledge of the signs/symptoms, causes and prevention of malaria but the question is why is the prevalence still on the high side. The answer may be in the attitude to and practice of prevention and disease management which the project should try to focus on. The fact that the word 'Malaria' is not new to the women means that it could be freely used in program messages.

Fig. 5.3.1 - Percent of women that have ever heard about malaria

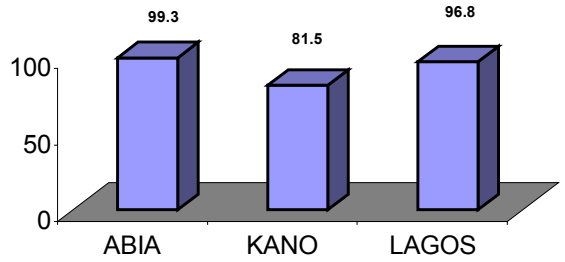


TABLE 5.3.1 : MALARIA – SYMPTOMS AND TREATMENT

	ABIA N=290		KANO N=233		LAGOS N=272		Project Area average N=795	
	#	%	#	%	#	%	#	%
Symptoms of malaria								
Fever/High Temperature	268	92.4	201	86.3	196	72.1	665	83.6
General weakness	179	61.7	39	17.2	87	30.9	305	38.4
Loss of appetite	206	71	27	11.6	64	23.5	297	37.4
Chills	76	26.2	33	15.9	67	24.6	176	22.1
Sick in stomach	47	16.2	11	4.7	6	**	64	8.1
Others	22	7.6	9	**	113	41.9	144	18.1
Don't Know	0	**	13	5.6	5	**	18	2.3
What child received for malaria treatment at home								
Chloroquine	182	62.8	132	56.7	122	44.9	436	54.8
Fansidar	20	6.9	2	0.9	4	**	26	3.3
Aspirin	1	**	3	1.3	1	**	5	**
Panadol/Paracetamol	93	32.1	65	27.9	124	45.6	282	35.5
Traditional herbs/drinks	5	**	10	4.3	29	10.7	44	5.5
Nothing	1	**	4	**	2	**	7	**
Others (Syrup, Antibiotic, Bonababe, capquine, Daraprin; Doctor prescription Feroquine, Alfan injection, Kidquine, Maloxine)	29	10	55	10.7	88	32.4	172	21.6
Don't Know	5	**	32	13.7	12	4.4	49	6.2
Signs of malaria requiring emergency care								
A fever that does not go away	282	97.3	211	90.6	191	70.2	684	86.0
Others	5	**	6	**	69	25.4	80	10.1
Don't Know	2	**	7	**	17	6.3	26	3.3
No response	1	**	9	**	2	**	12	1.5

*** Data suppressed due to small cell size (less than 10 observations*

Multiple response question

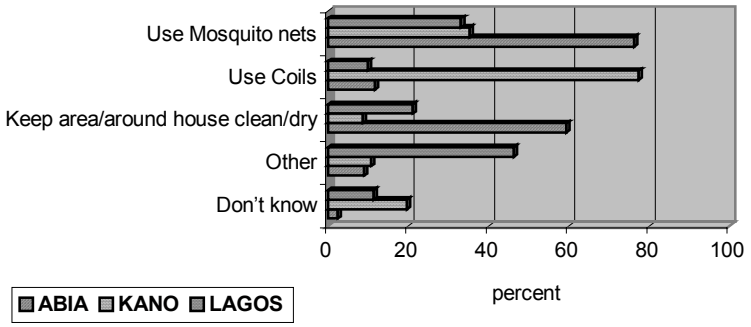
Table 5.3.2 CAUSES OF MALARIA

CAUSES	ABIA N=290		KANO N=233		LAGOS N=272		N=795	
	#	%	#	%	#	%	#	%
Mosquitoes	241	83.1	203	87.1	132	48.5	576	72.5
Poor Sanitation	157	54.1	16	6.9	24	8.8	197	24.8
To much sun/heat	26	9	10	4.3	42	15.4	78	9.8
Poor Diet	33	11.4	5	**	5	**	43	5.4
Overwork	1	**	4	**	29	10.7	34	4.3
Others	30	10.3	11	4.7	34	12.5	75	9.4
Don't know	10	3.4	12	5.2	50	18.4	72	9.1

*** Data suppressed due to small cell size (less than 10 observations*

Multiple response question

Fig.5.3.2 - Method of protecting child against malaria



Chapter 8: CONCLUSIONS

CHAPTER 9: REFERENCES

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Appendix—Table 6.0

Table 6.0: Child Care practices and beliefs

	ABIA N=292		KANO N=286		LAGOS N=281		Project Area average N=859	
	#	%	#	%	#	%	#	%
Prefer hospital for delivery								
Disagree completely	12	4.1	109	38.1	30	10.7	151	17.6
Disagree slightly	1	0.3	33	4.5	2	0.7	36	4.2
Agree slightly	7	2.4	29	10.1	10	3.6	46	5.4
Agree completely	269	92.1	111	38	237	84.6	617	71.8
Don't know	0	0	0	0	0	0	0	0.0
No response	3	1	4	1.4	2	0.7	9	1.0
When sick, baby should not be immunized								
Disagree completely	69	23.6	66	23.1	65	23.1	200	23.3
Disagree slightly	11	3.8	26	9.1	14	5	51	5.9
Agree slightly	58	19.9	27	9.4	13	4.6	98	11.4
Agree completely	148	50.7	152	53.1	170	60.5	470	54.7
Don't know	4	1.4	14	4.9	17	6	35	4.1
No response	2	0.7	1	0.4	2	0.7	5	0.6
Not talk to husband on child health								
Disagree completely	206	70.6	175	61.2	248	88.4	629	73.2
Disagree slightly	32	11	47	16.4	6	2.1	85	9.9
Agree slightly	31	10.6	18	6.3	9	3.2	58	6.8
Agree completely	21	7.2	43	15	16	5.6	80	9.3
Don't know	0	0	0	0	0	0	0	0.0
No response	1	0.3	3	1	2	0.7	6	0.7
Husband allowed me not for meetings								
Disagree completely	160	54.8	119	41.7	223	79.4	502	58.4
Disagree slightly	53	18.2	31	10.8	4	1.4	88	10.2
Agree slightly	32	11	25	8.7	6	2.1	63	7.3
Agree completely	46	15.8	107	37.4	46	16.4	199	23.2
Don't know	0	0	0	0	2	0.7	2	0.2
No response	1	0.3	4	1.4	0	0	5	0.6
Perception on child care								
Disagree completely	98	33.6	237	82.9	116	41.3	451	52.5
Disagree slightly	46	15.8	22	7.7	24	8.5	92	10.7
Agree slightly	43	14.7	6	2.1	47	16.7	96	11.2
Agree completely	102	34.9	20	7	93	33.1	215	25.0
Don't know	2	0.7	0	0	1	0.4	3	0.3
No response	1	0.3	1	0.4	0	0	2	0.2
Girls need not breast feed as boys								
Disagree completely	240	82.2	165	57.7	131	82.2	536	62.4
Disagree slightly	8	2.7	46	16.1	10	3.6	64	7.5
Agree slightly	20	6.8	22	7.7	14	5	56	6.5
Agree completely	11	3.8	48	16.8	22	7.8	81	9.4
Don't know	12	4.1	4	1.4	4	1.4	20	2.3
No response	1	0.3	1	0.4	0	0	2	0.2
Better care at home with TBA								
Disagree completely	281	96.2	103	36	223	79.4	607	70.7
Disagree slightly	4	1.4	25	8.7	5	1.8	34	4.0
Agree slightly	0	0	34	11.9	16	5.7	50	5.8
Agree completely	6	2.1	120	42	32	11.4	158	18.4
Don't know	0	0	1	0.3	5	1.8	6	0.7
No response	1	0.3	3	1	0	0	4	0.5
Will not go to health provider without husband's approval								

approval								
Disagree completely	107	36.6	59	20.6	121	43.1	287	33.4
Disagree slightly	65	22.3	18	6.3	11	3.9	94	10.9
Agree slightly	54	18.5	12	4.2	41	14.6	107	12.5
Agree completely	65	22.3	190	66.5	108	38.4	363	42.3
Don't know	0	0	1	0.3	0	0	1	0.1
No response	1	1	6	2.1	0	0	7	0.8
Husband listens too much to mother about child's feeding								
Disagree completely	209	71.6	154	53.9	206	73.4	569	66.2
Disagree slightly	27	9.2	41	14.3	15	5.3	83	9.7
Agree slightly	37	12.7	25	8.7	16	5.3	78	9.1
Agree completely	17	5.8	60	21	32	11.4	109	12.7
Don't know	0	0	2	0.7	5	1.8	7	0.8
No response	2	0.7	4	1.4	8	2.8	14	1.6
Breast feeding sags breast								
Disagree completely	103	35.3	154	53.8	168	59.8	425	49.5
Disagree slightly	43	14.7	37	12.9	8	2.8	88	10.2
Agree slightly	56	19.2	32	11.2	18	6.4	106	12.3
Agree completely	86	29.4	60	21	78	27.8	224	26.1
Don't know	2	0.7	1	0.3	8	2.8	11	1.3
No response	2	0.7	2	0.7	1	0.4	5	0.6
Mother should not give foods/liquids to child until the age of 6 months								
Disagree completely	98	33.6	237		116			
Disagree slightly	46		22		24			
Agree slightly	43		6		47			
Agree completely	102		20		93			
Don't know	**	**	**		**			
No response	**	**	**		**			

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